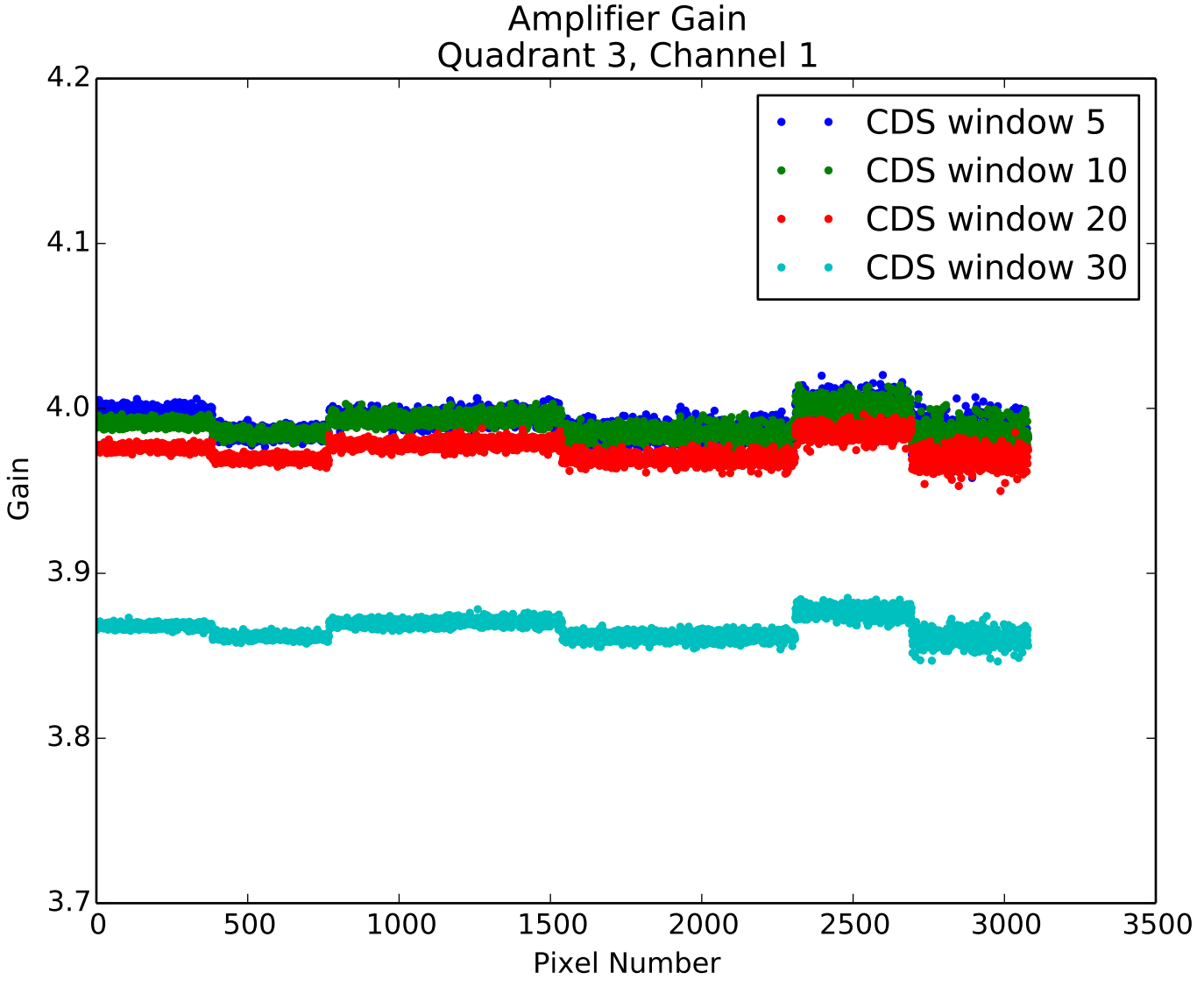
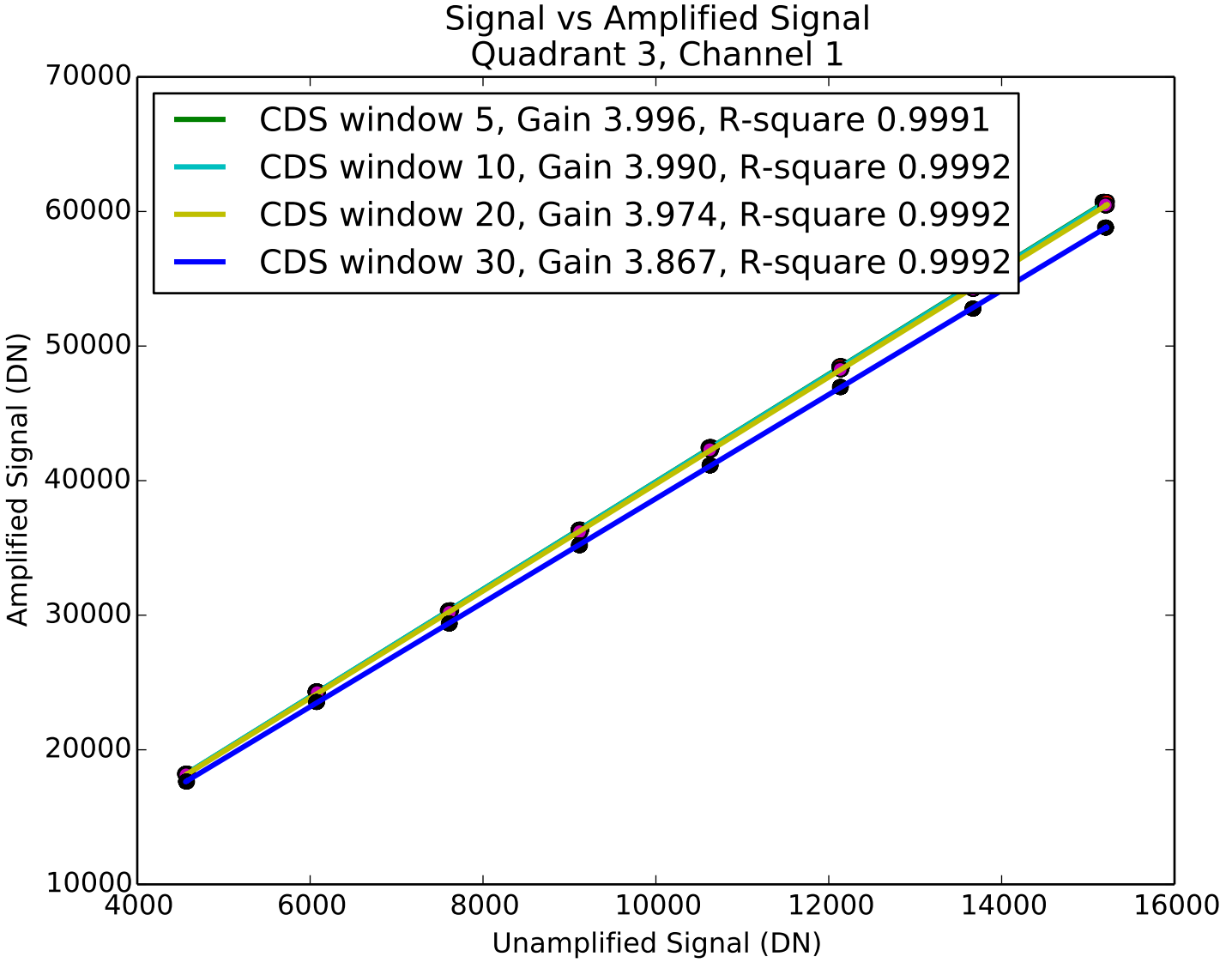
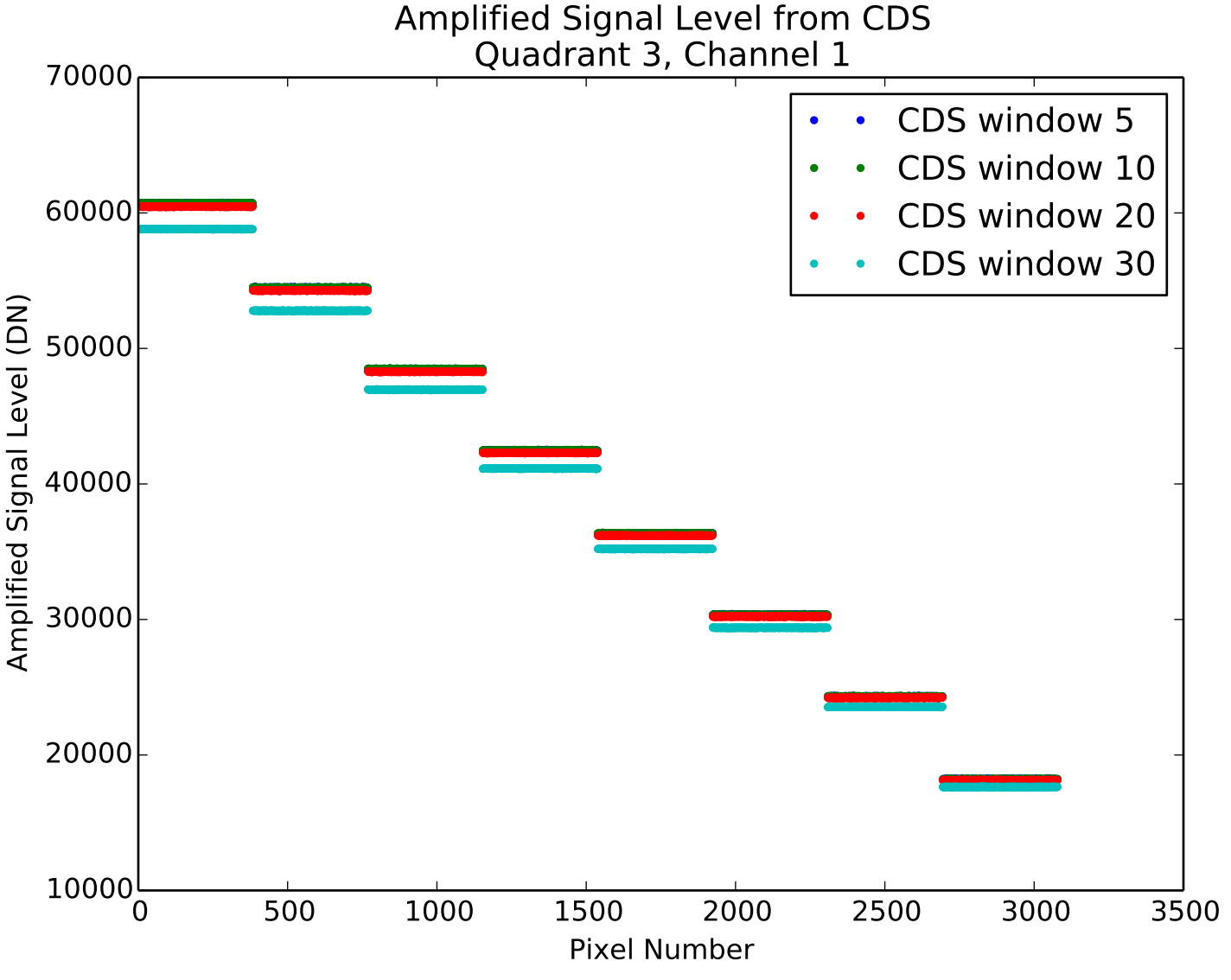
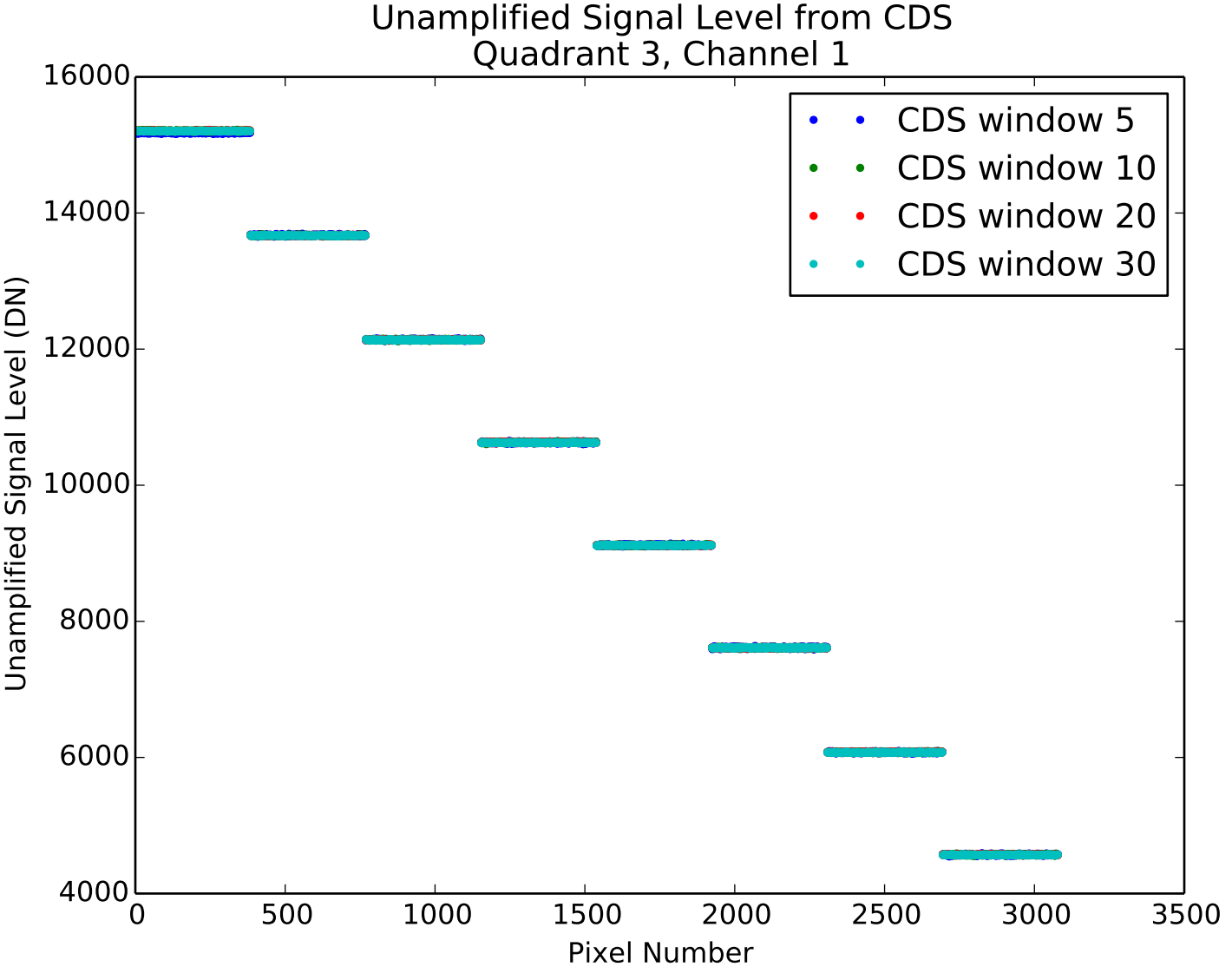
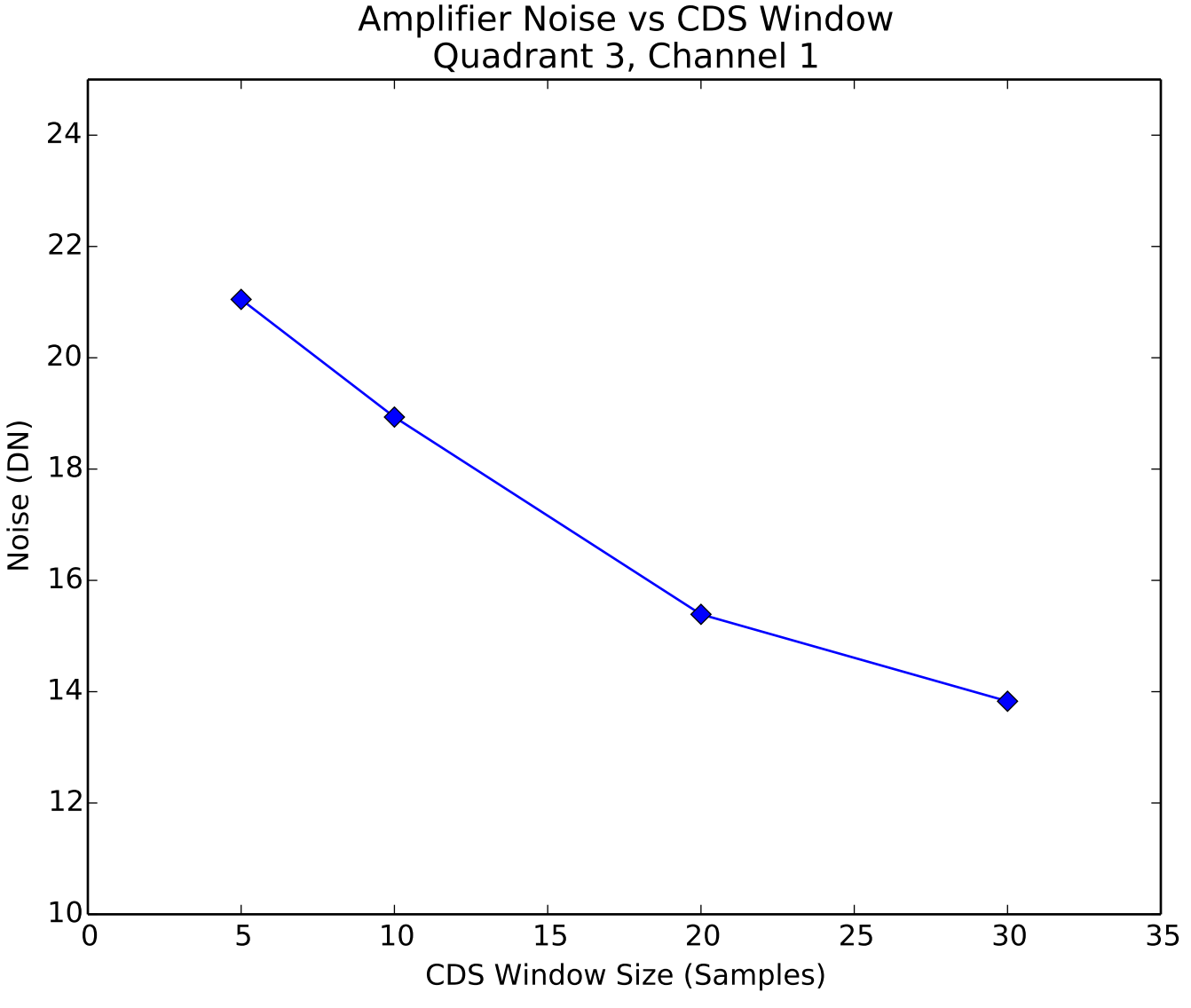
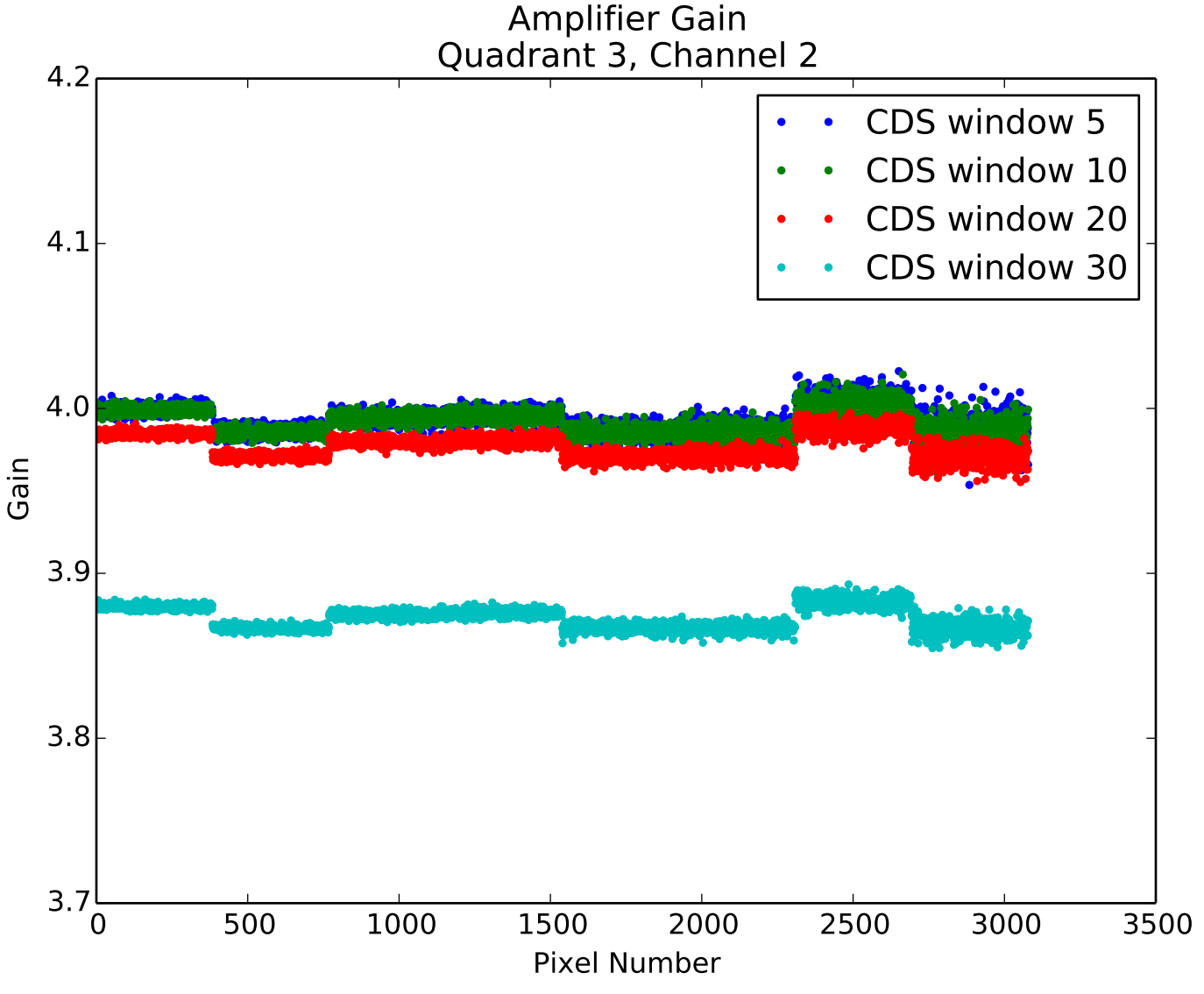

Amplifier Gain
Quadrant 3, Channel 1
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

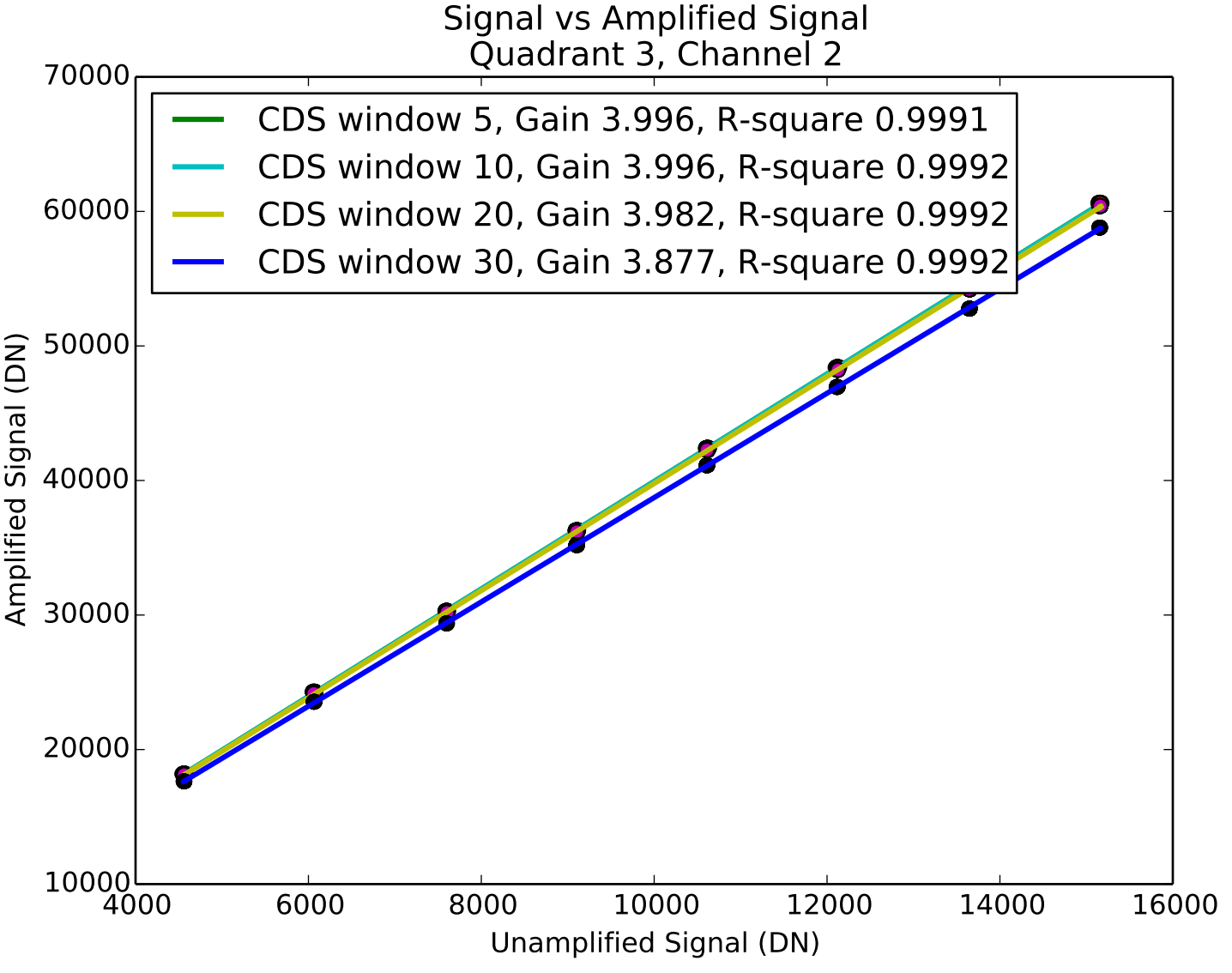

Signal vs Amplified Signal
Quadrant 3, Channel 1
CDS window 5, Gain 3.996, R-square 0.9991
CDS window 10, Gain 3.990, R-square 0.9992
CDS window 20, Gain 3.974, R-square 0.9992
CDS window 30, Gain 3.867, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

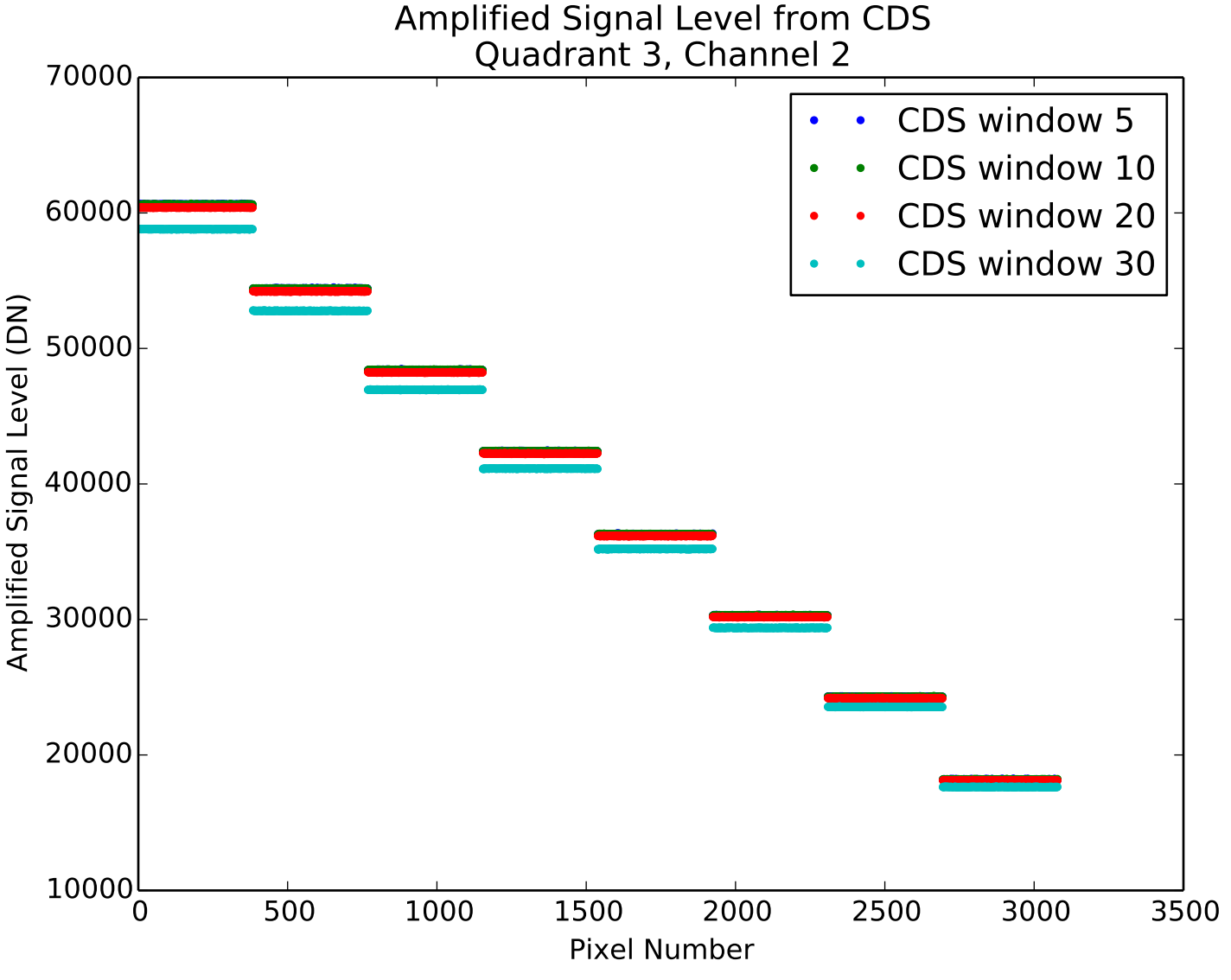

Amplified Signal Level from CDS
Quadrant 3, Channel 1
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

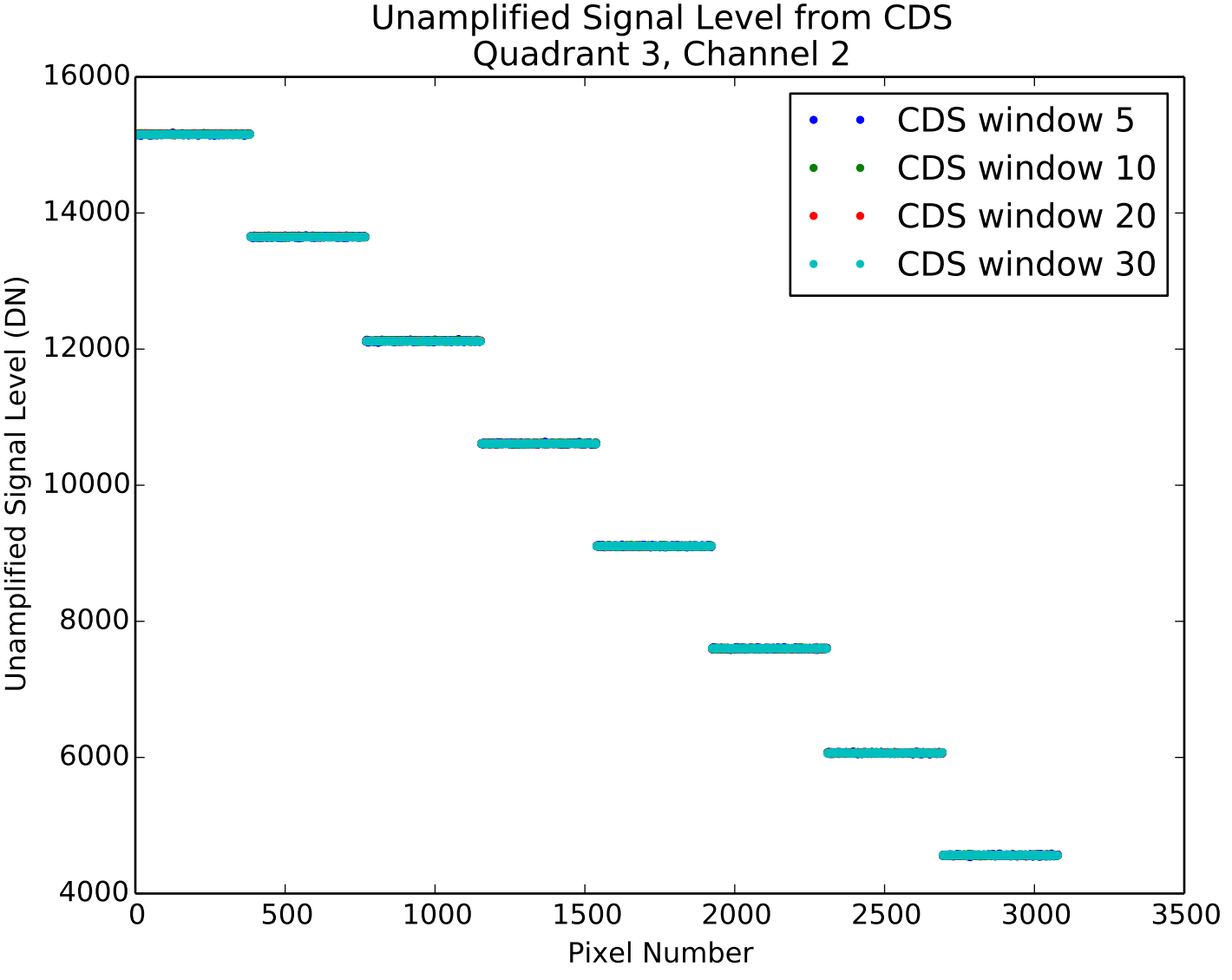

Unamplified Signal Level from CDS
Quadrant 3, Channel 1
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

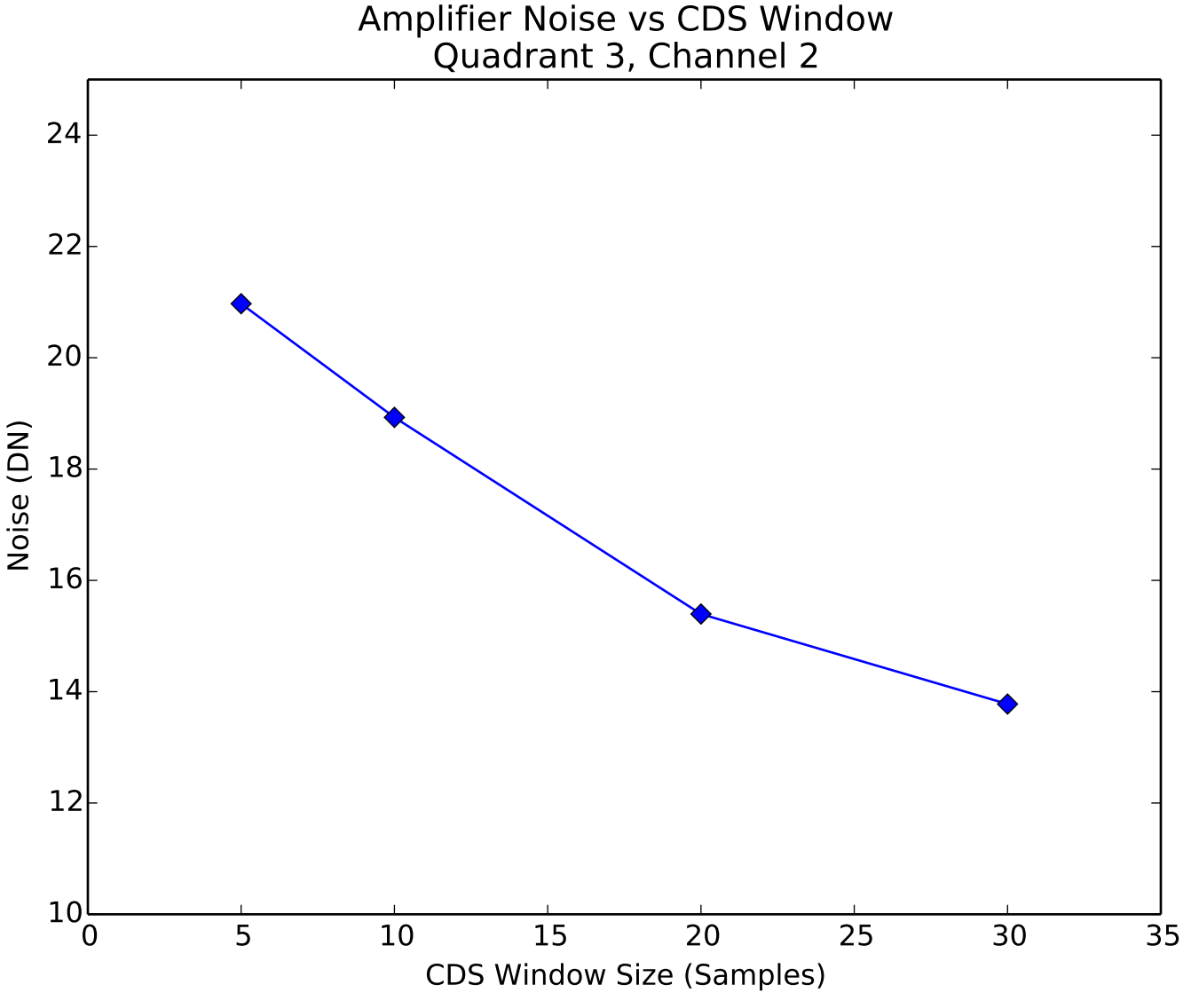

Amplifier Noise vs CDS Window
Quadrant 3, Channel 1
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

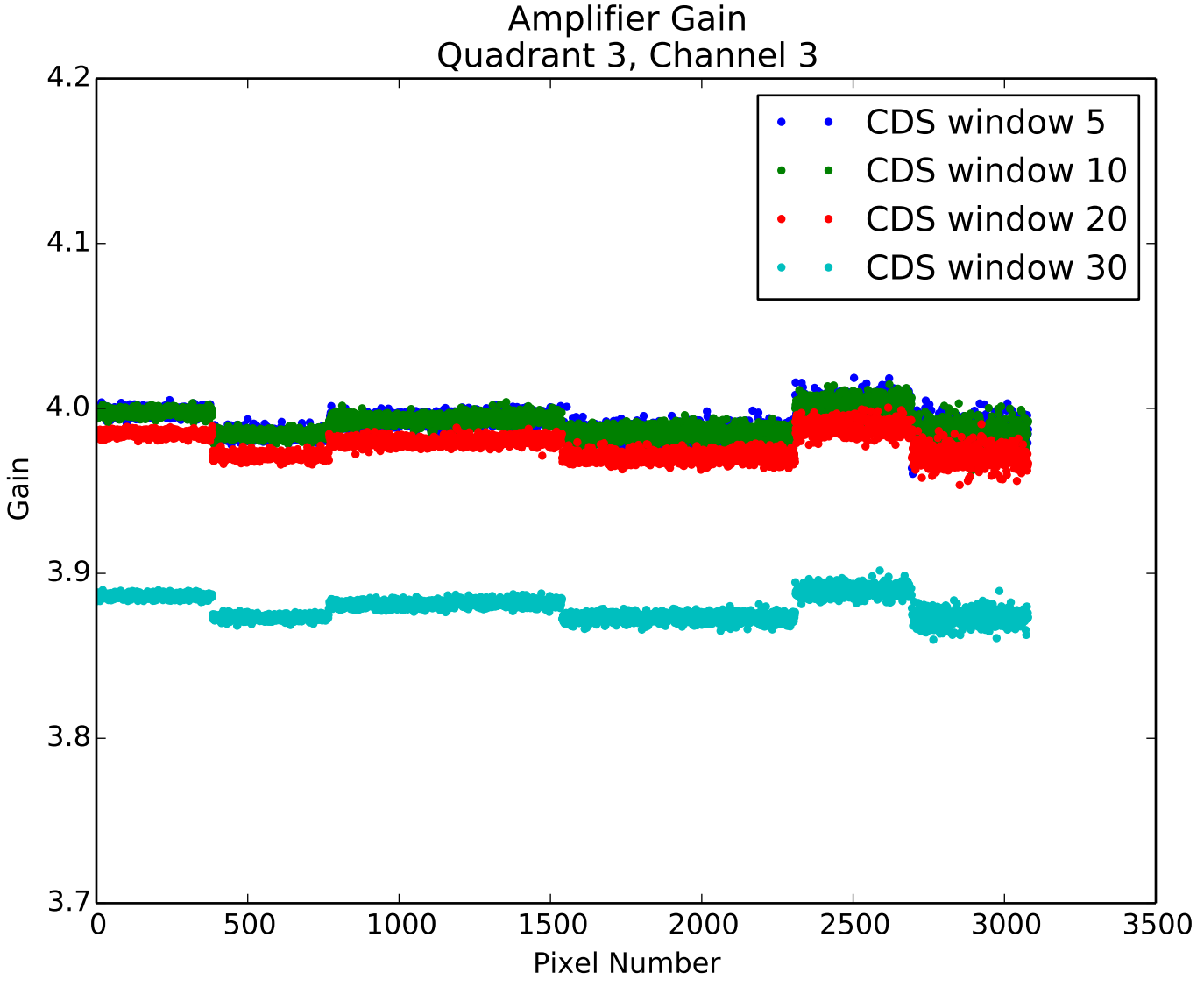

Amplifier Gain
Quadrant 3, Channel 2
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

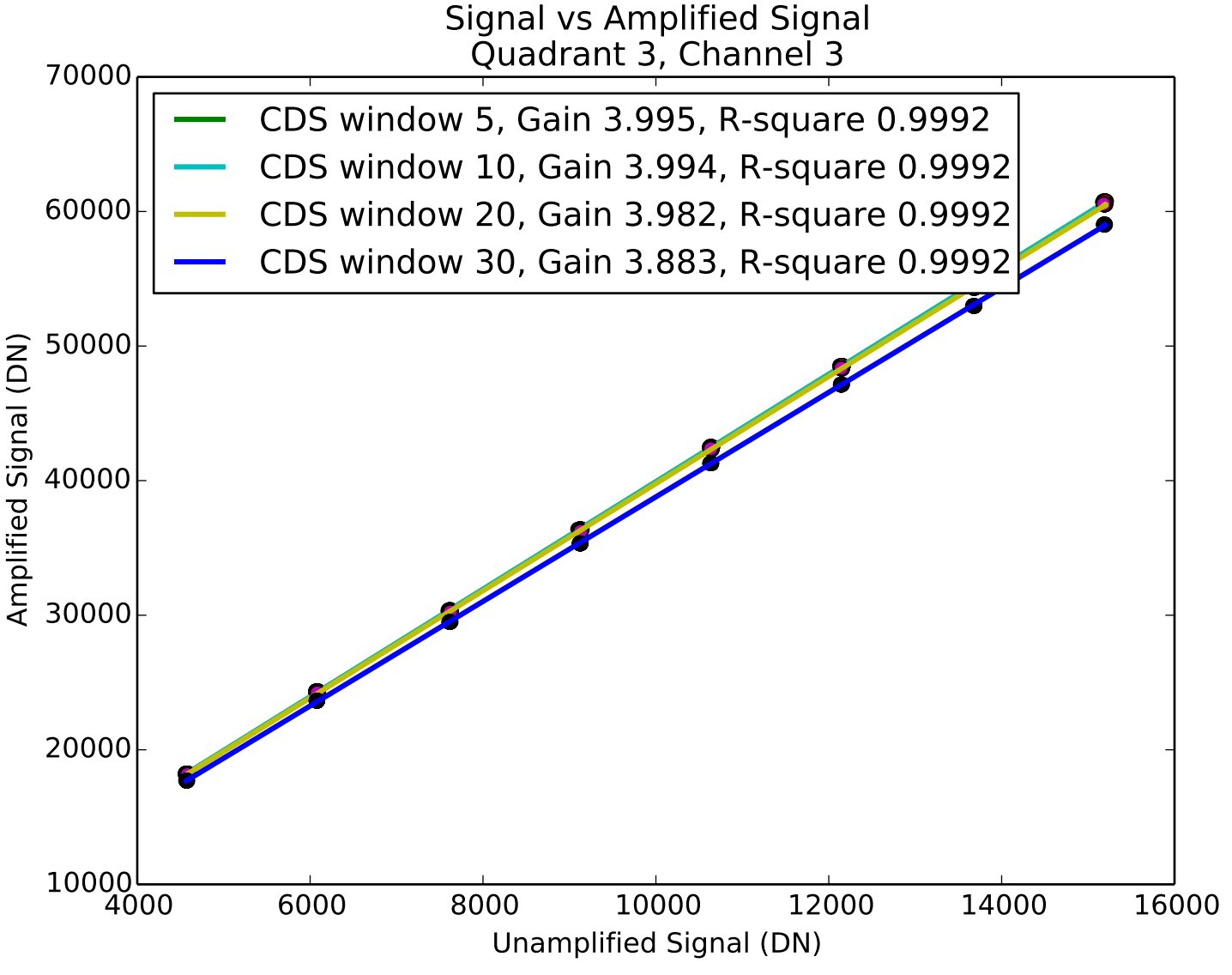

Signal vs Amplified Signal
Quadrant 3, Channel 2
CDS window 5, Gain 3.996, R-square 0.9991
CDS window 10, Gain 3.996, R-square 0.9992
CDS window 20, Gain 3.982, R-square 0.9992
CDS window 30, Gain 3.877, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

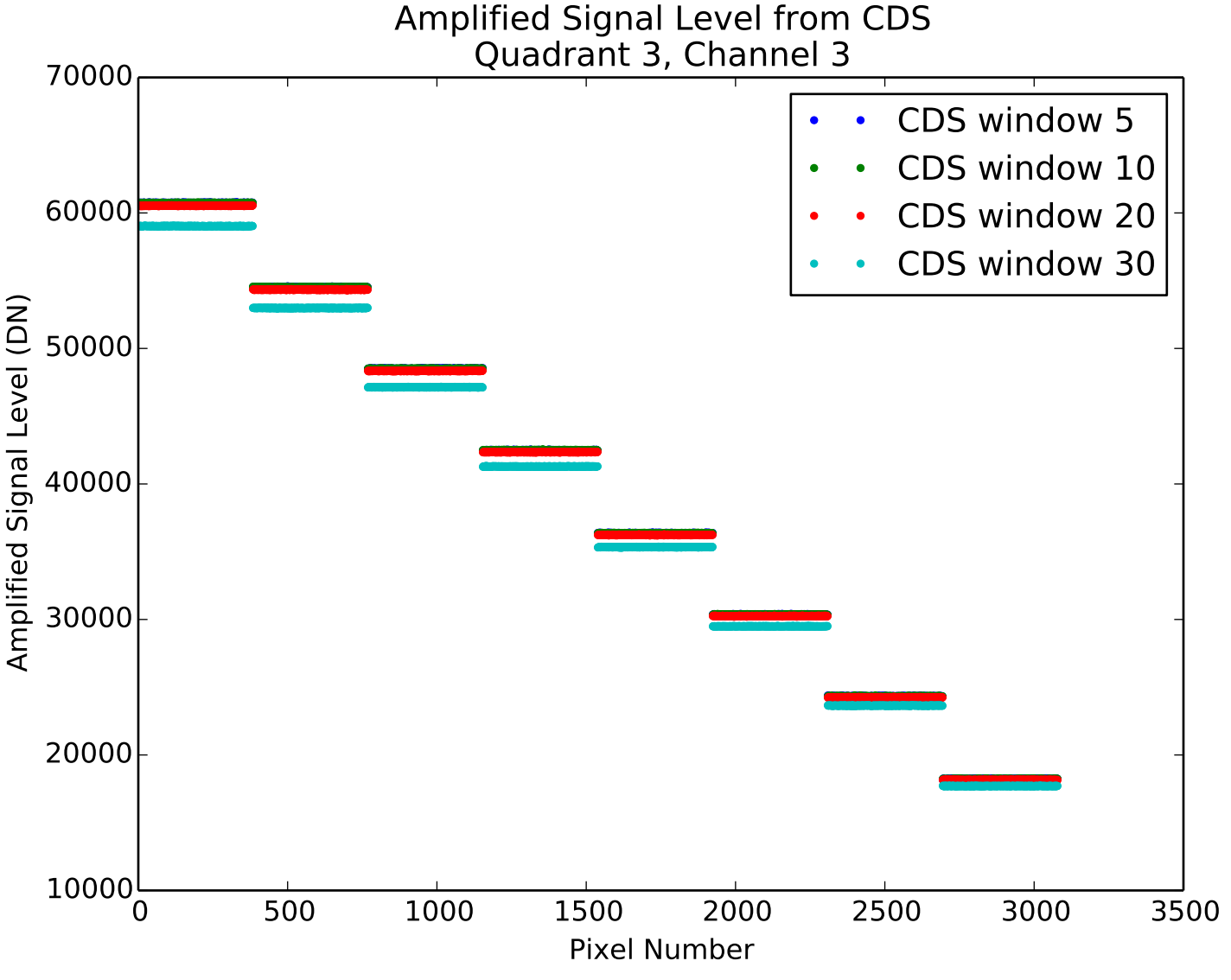

Amplified Signal Level from CDS
Quadrant 3, Channel 2
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

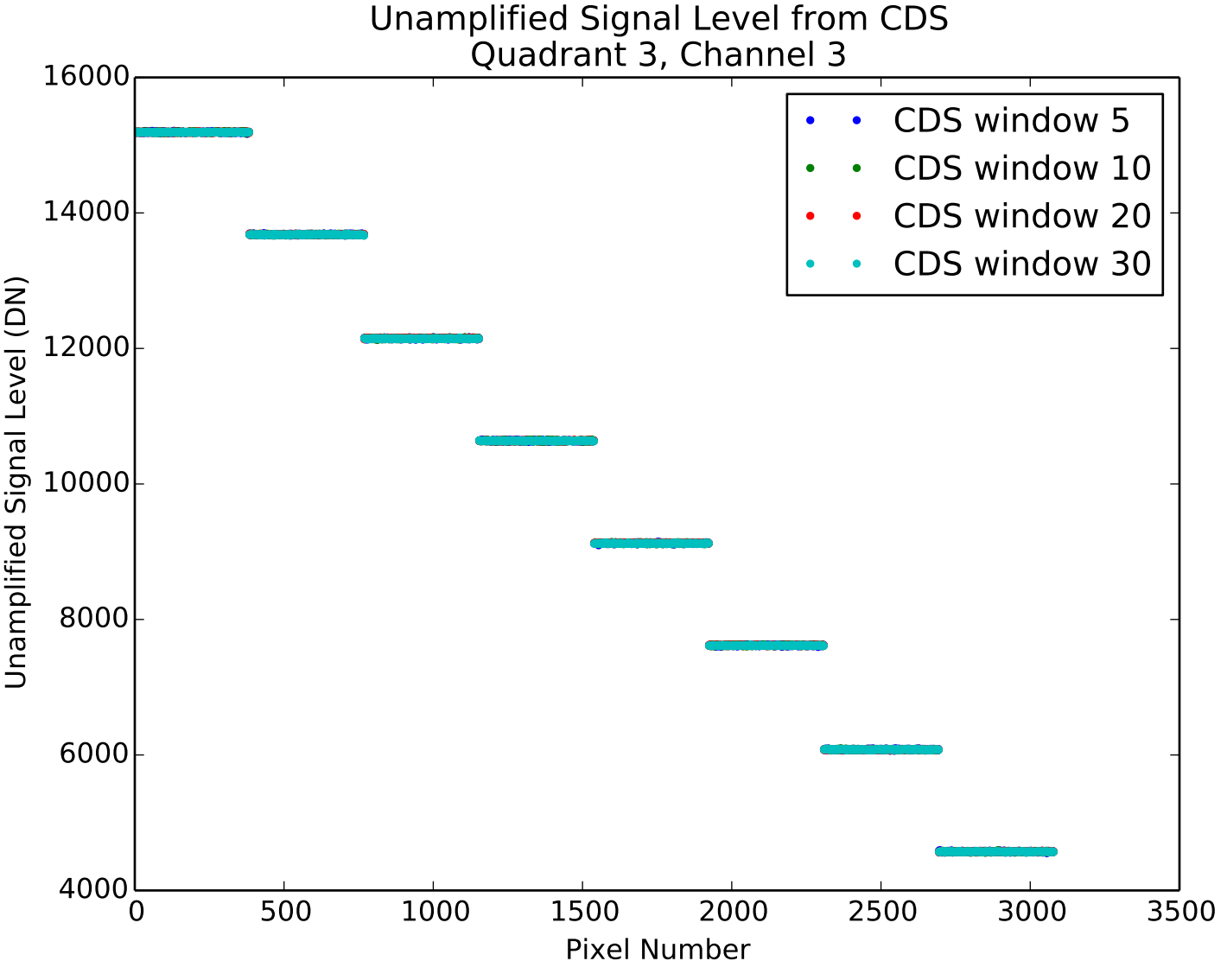

Unamplified Signal Level from CDS
Quadrant 3, Channel 2
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

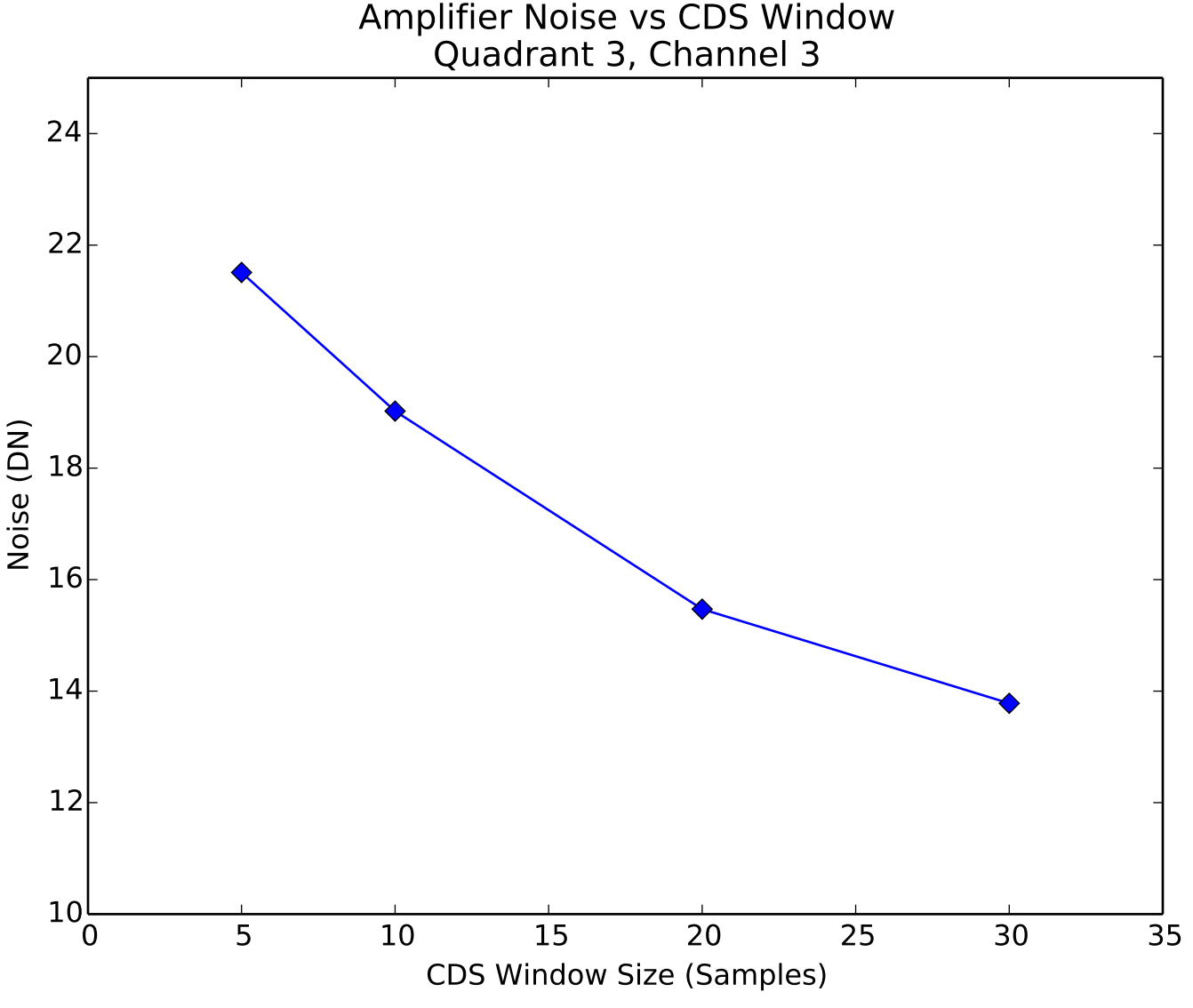

Amplifier Noise vs CDS Window
Quadrant 3, Channel 2
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

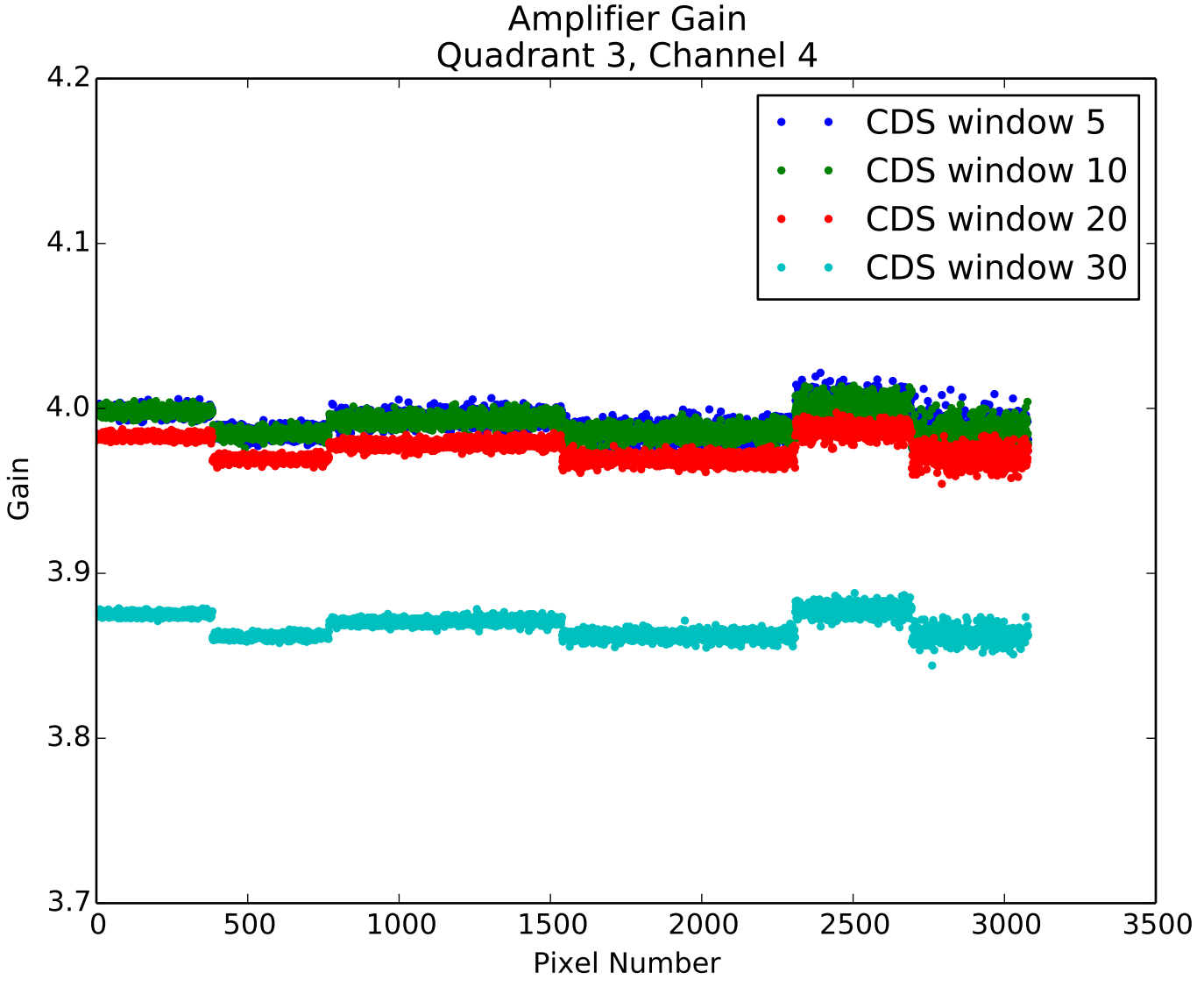

Amplifier Gain
Quadrant 3, Channel 3
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

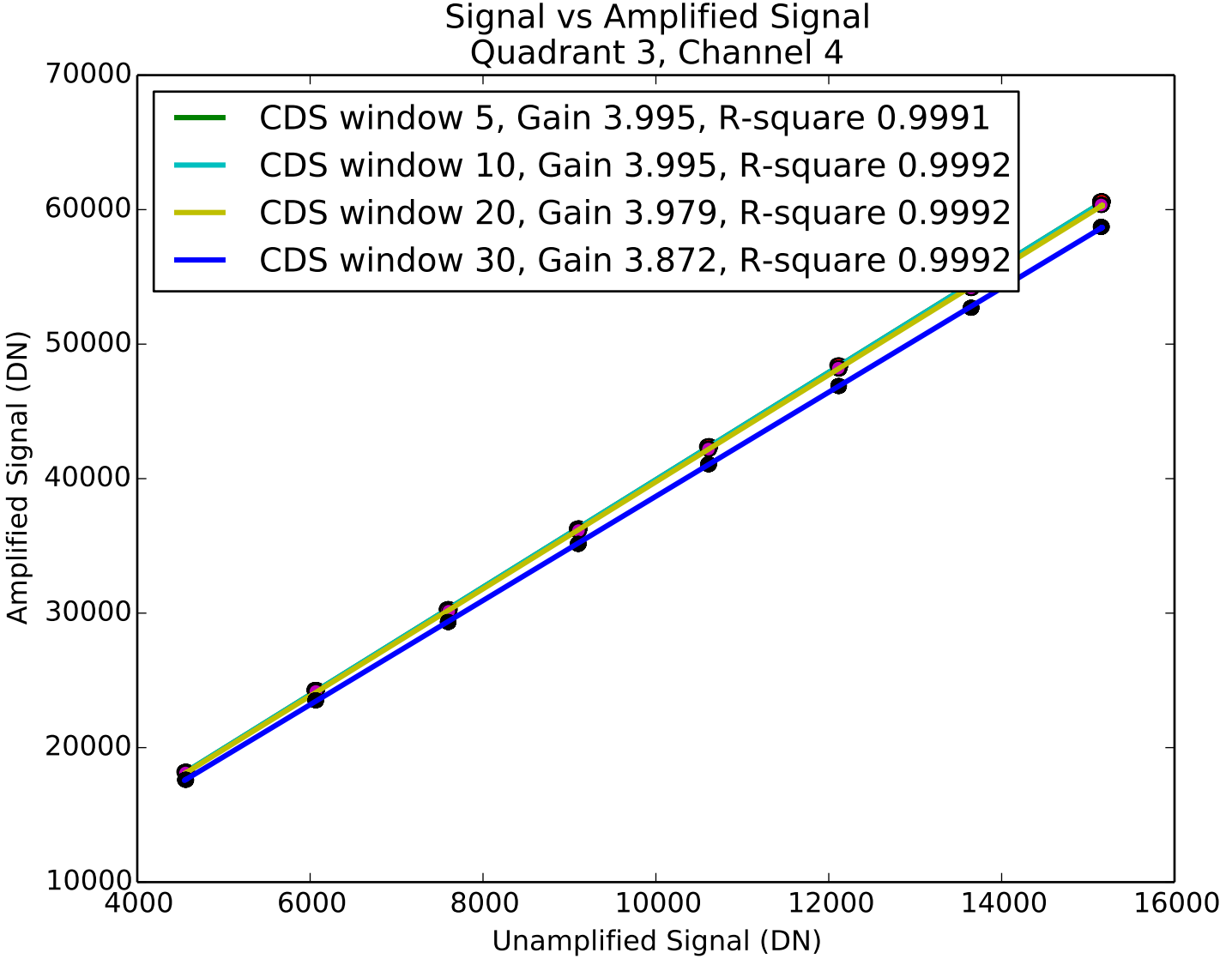

Signal vs Amplified Signal
Quadrant 3, Channel 3
CDS window 5, Gain 3.995, R-square 0.9992
CDS window 10, Gain 3.994, R-square 0.9992
CDS window 20, Gain 3.982, R-square 0.9992
CDS window 30, Gain 3.883, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

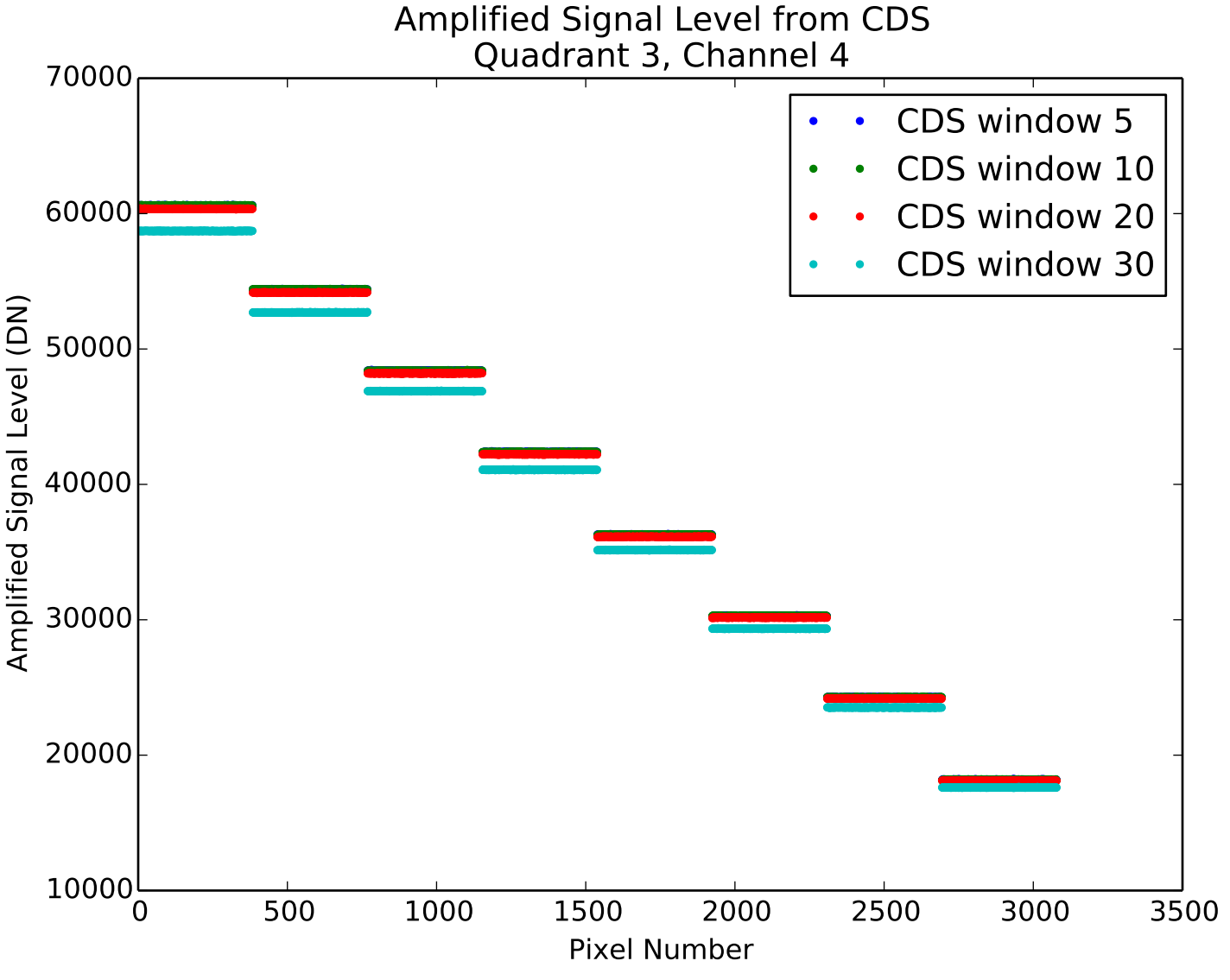

Amplified Signal Level from CDS
Quadrant 3, Channel 3
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

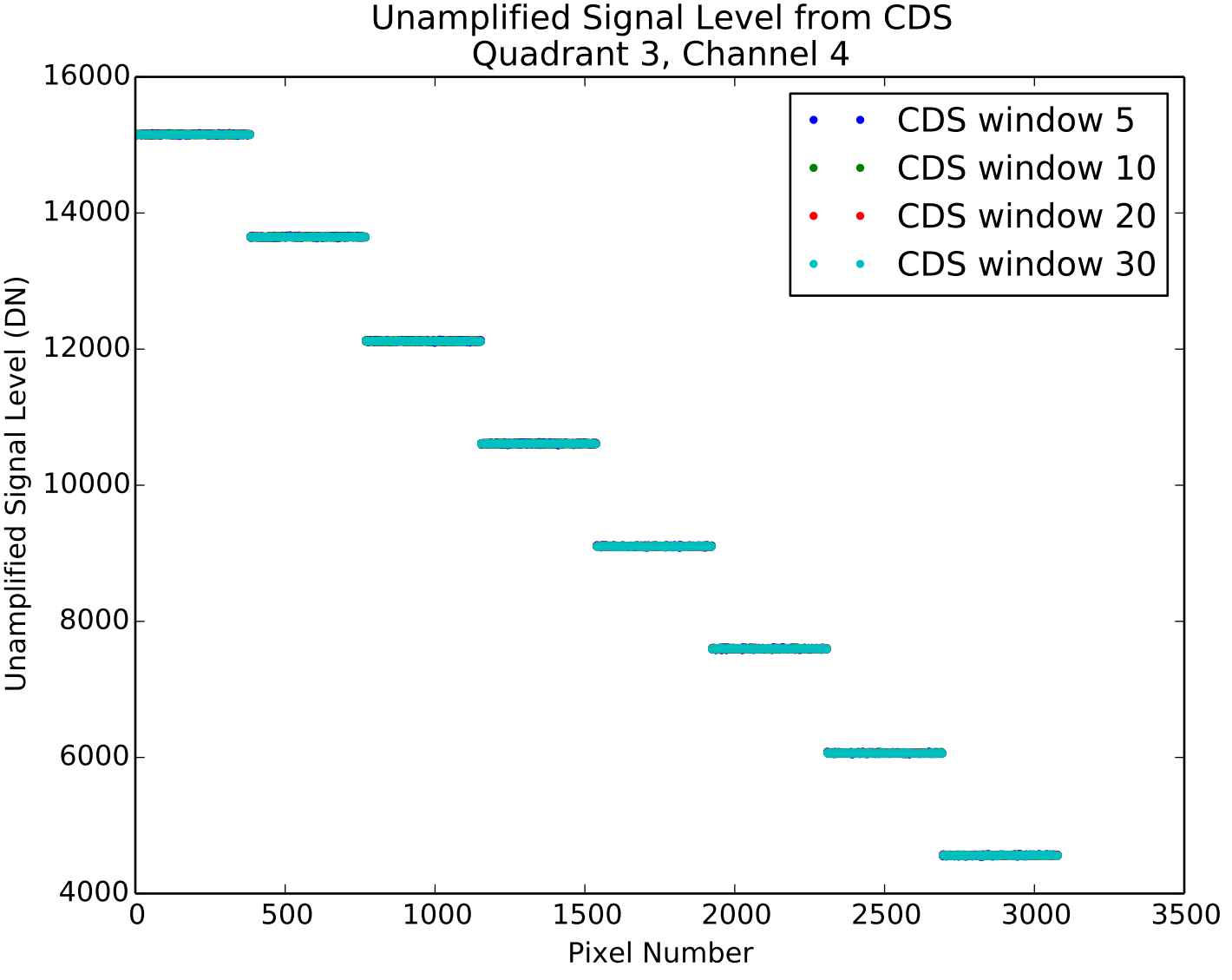

Unamplified Signal Level from CDS
Quadrant 3, Channel 3
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

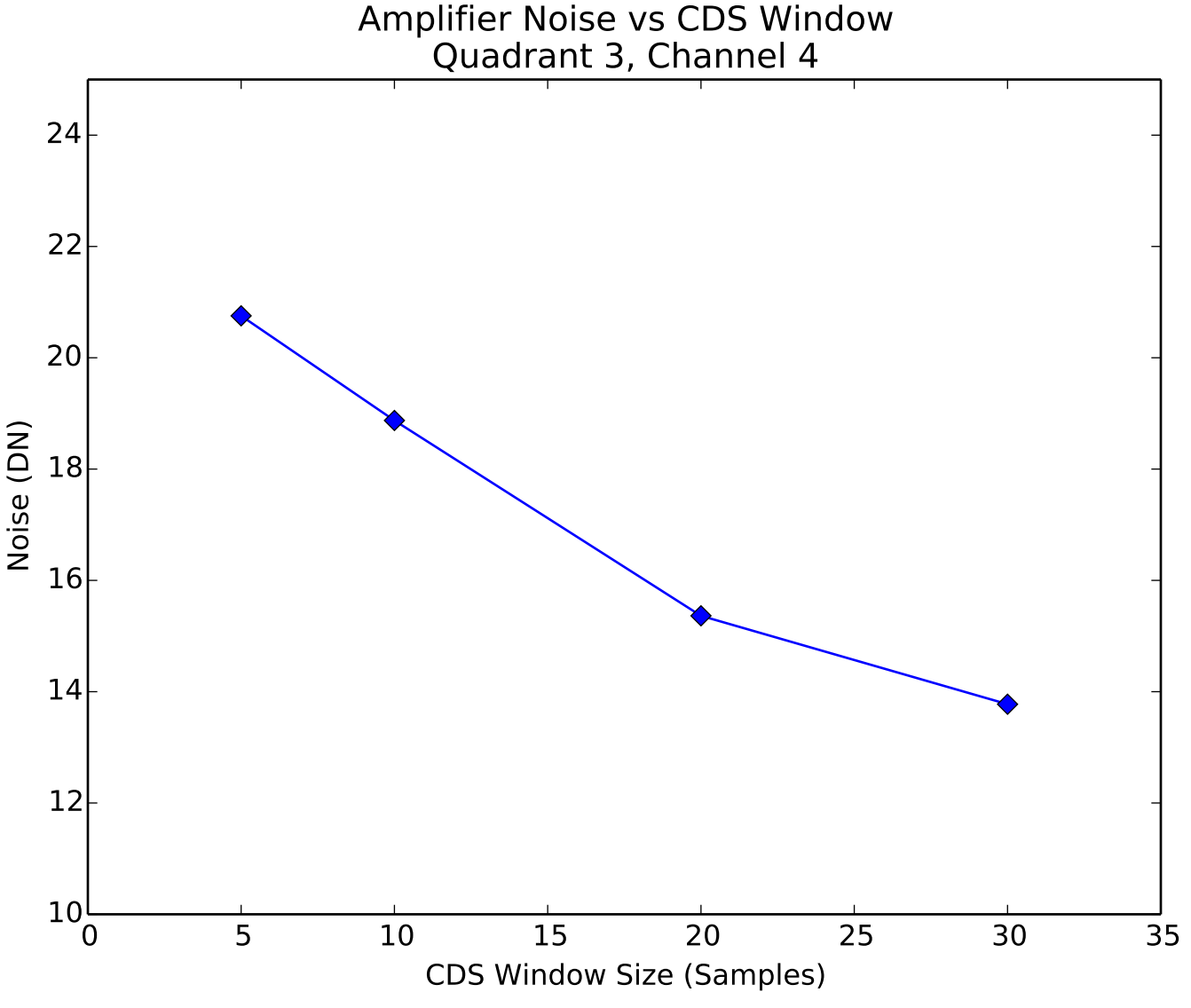

Amplifier Noise vs CDS Window
Quadrant 3, Channel 3
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

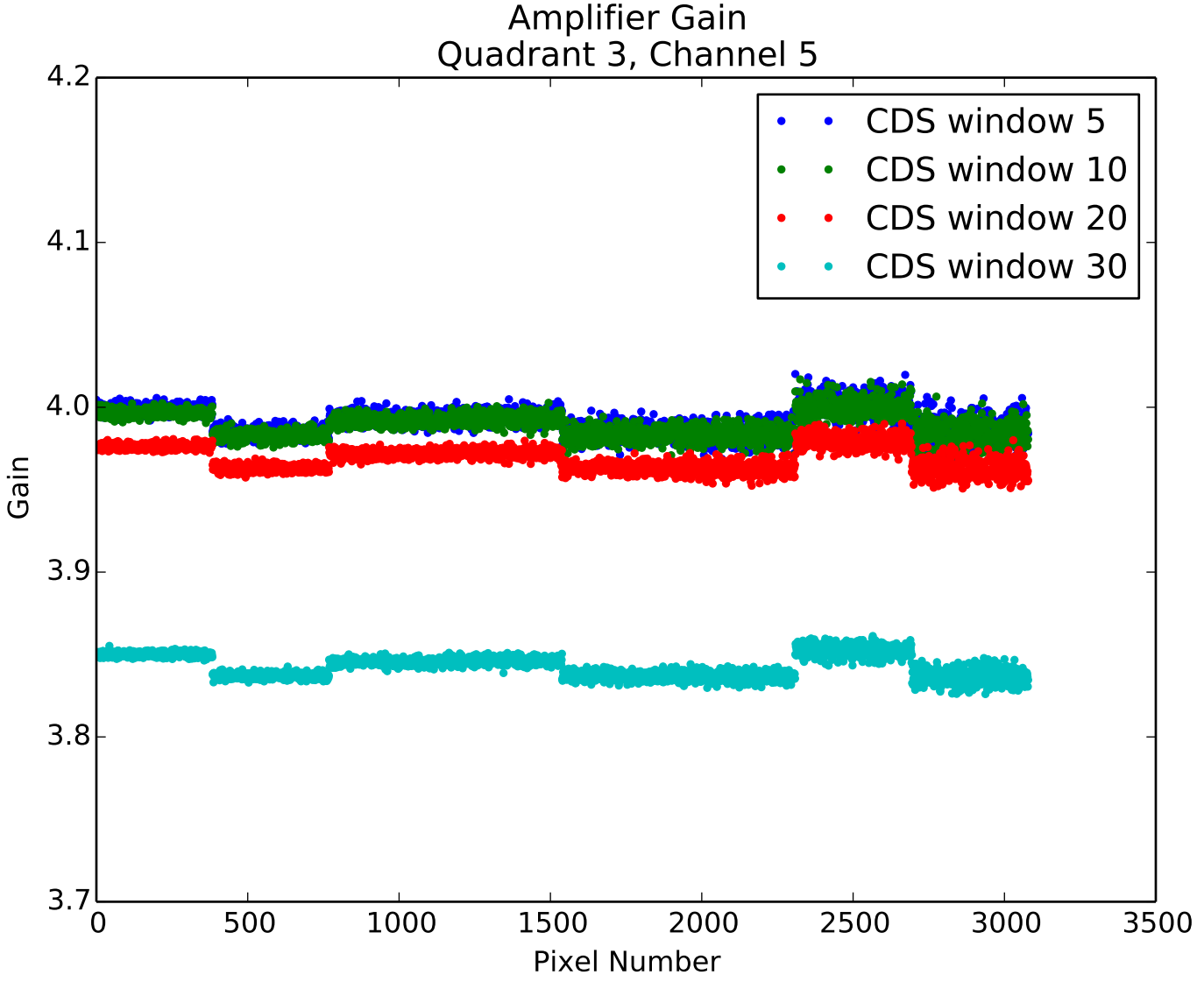

Amplifier Gain
Quadrant 3, Channel 4
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

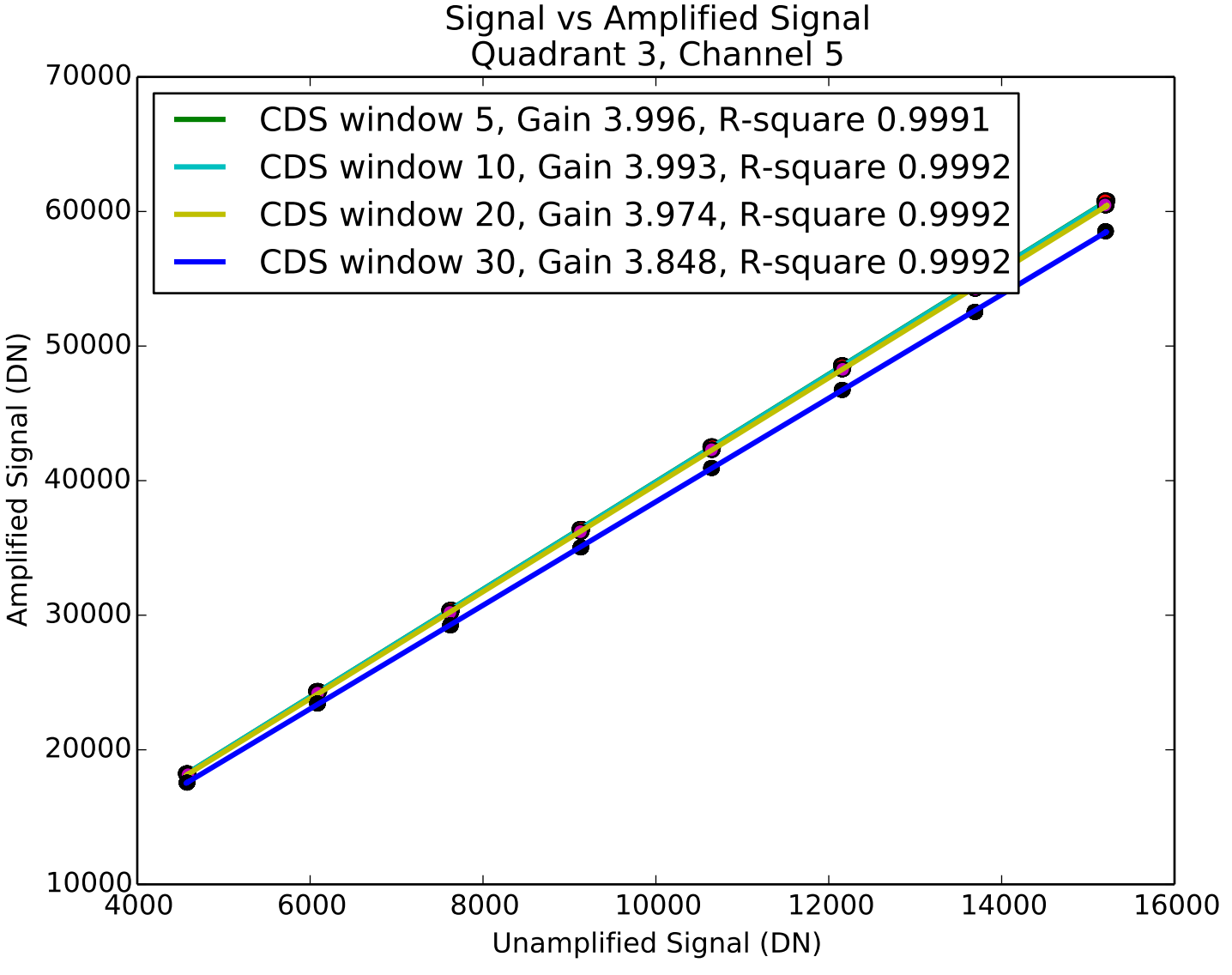

Signal vs Amplified Signal
Quadrant 3, Channel 4
CDS window 5, Gain 3.995, R-square 0.9991
CDS window 10, Gain 3.995, R-square 0.9992
CDS window 20, Gain 3.979, R-square 0.9992
CDS window 30, Gain 3.872, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

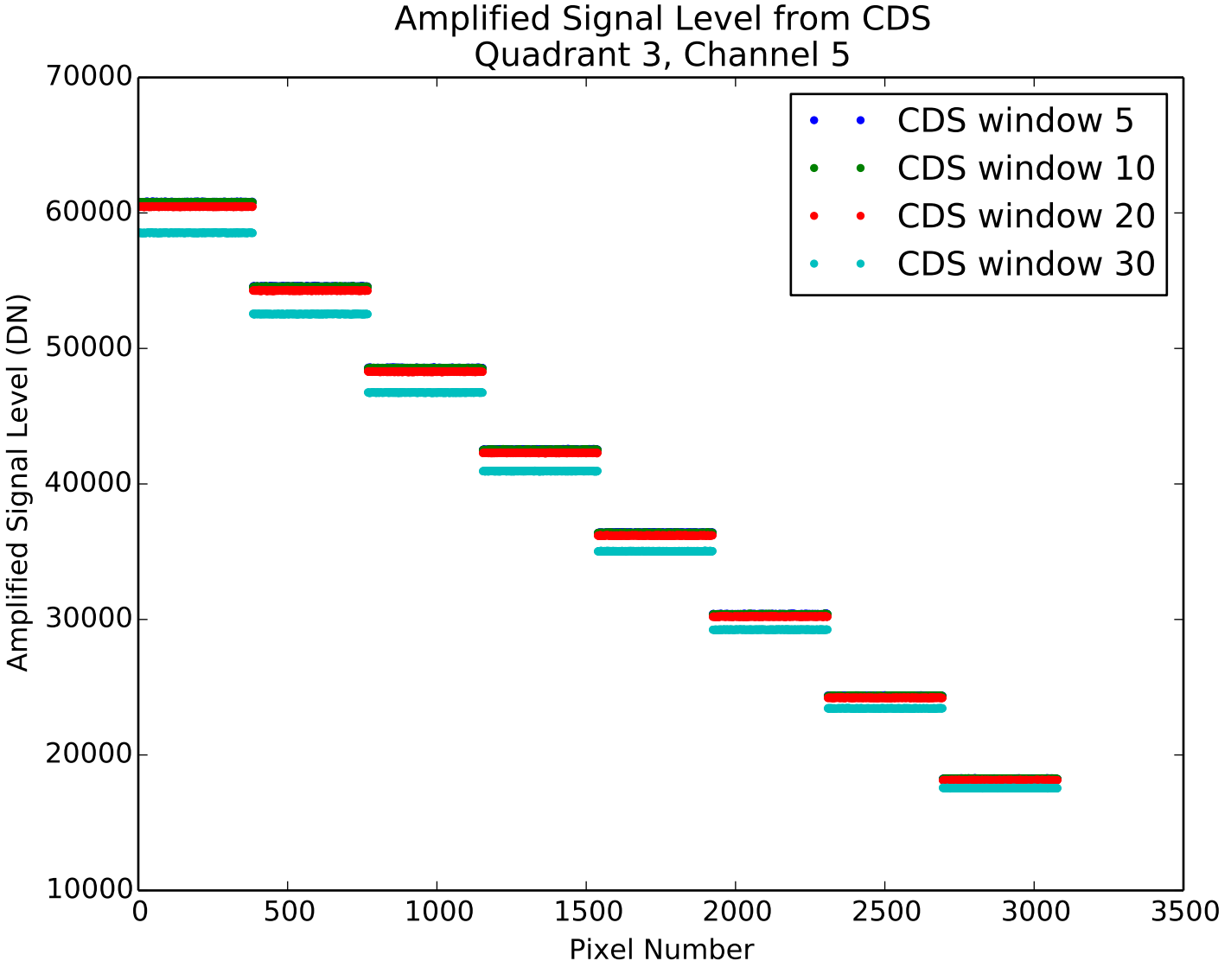

Amplified Signal Level from CDS
Quadrant 3, Channel 4
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

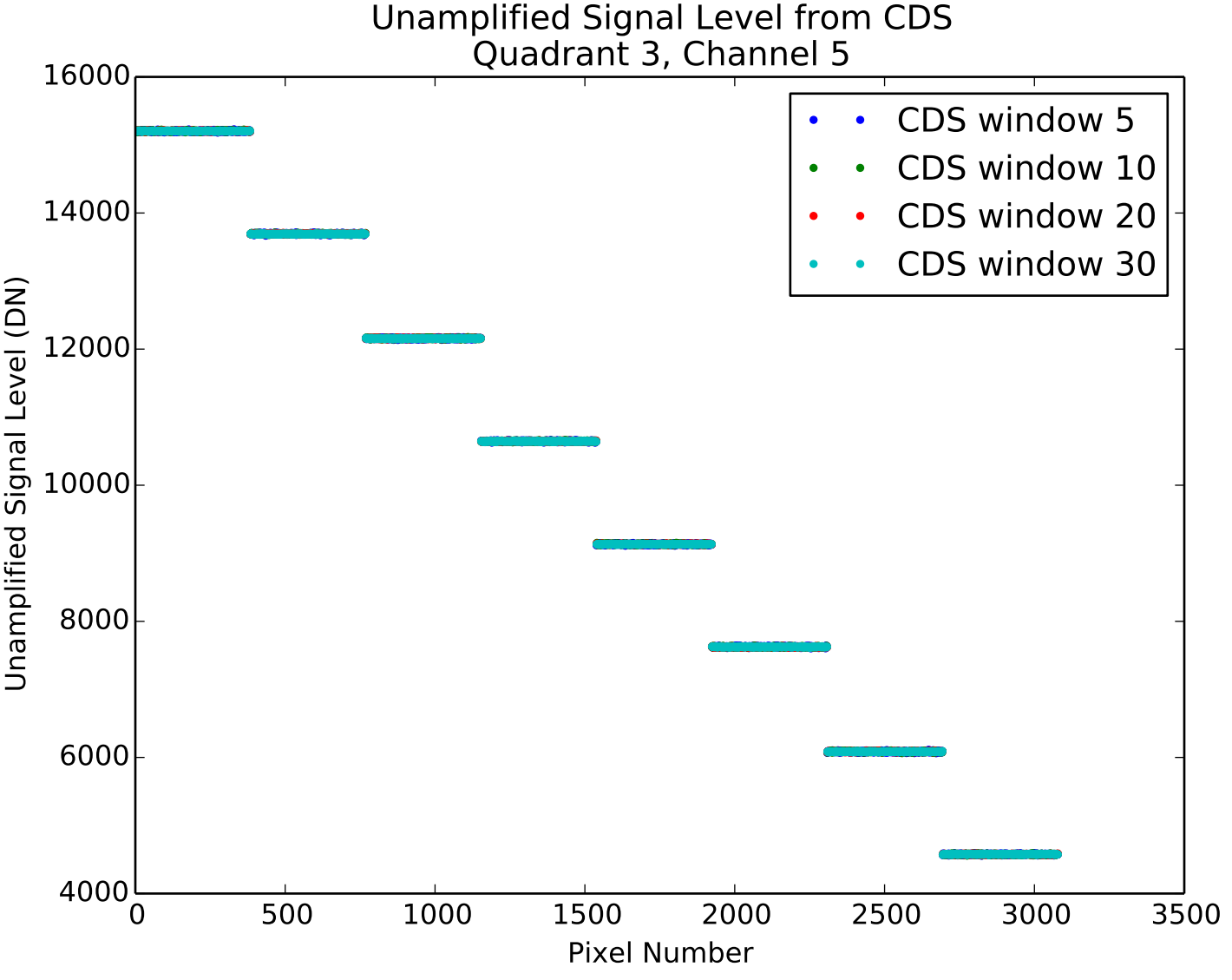

Unamplified Signal Level from CDS
Quadrant 3, Channel 4
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

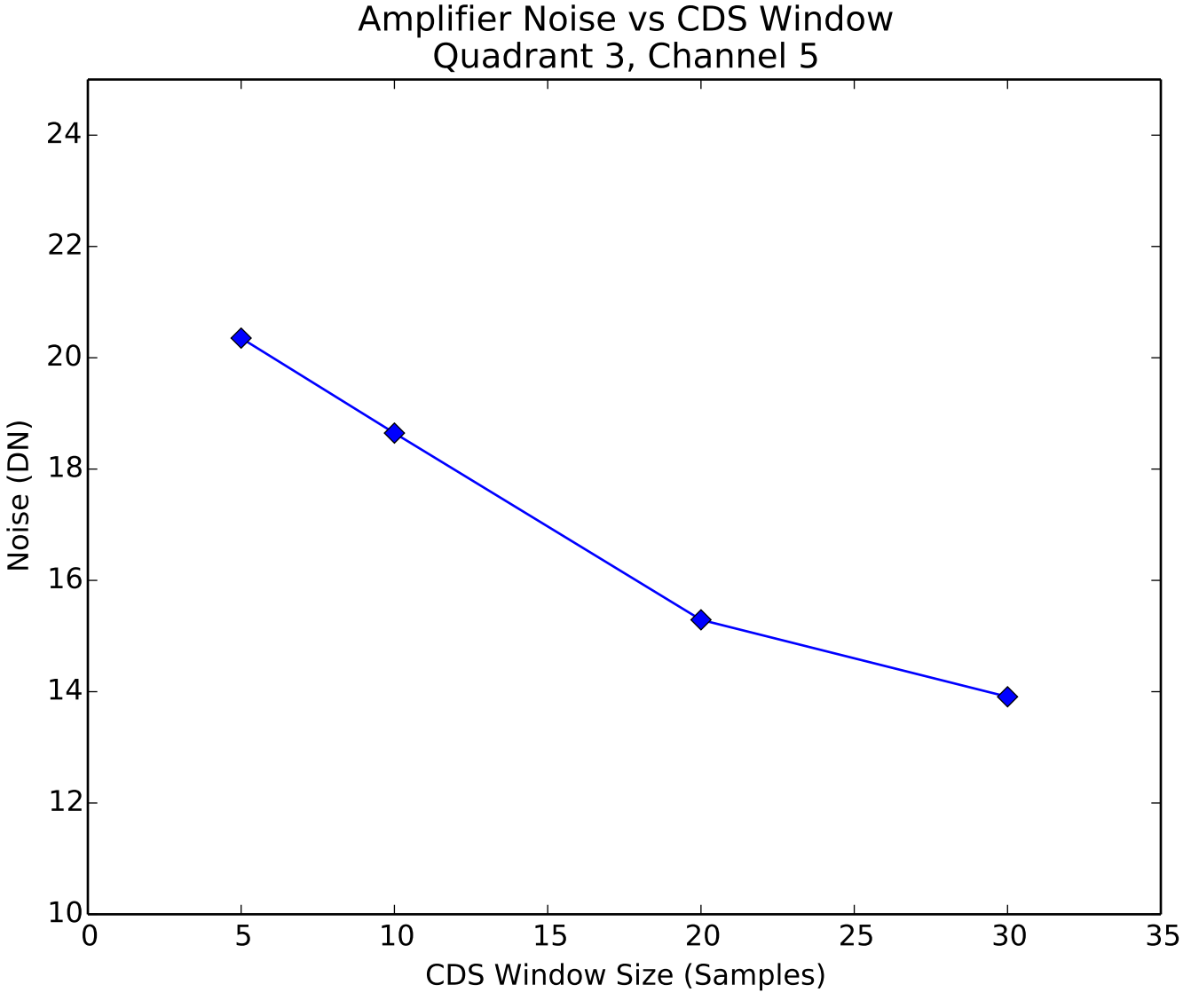

Amplifier Noise vs CDS Window
Quadrant 3, Channel 4
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

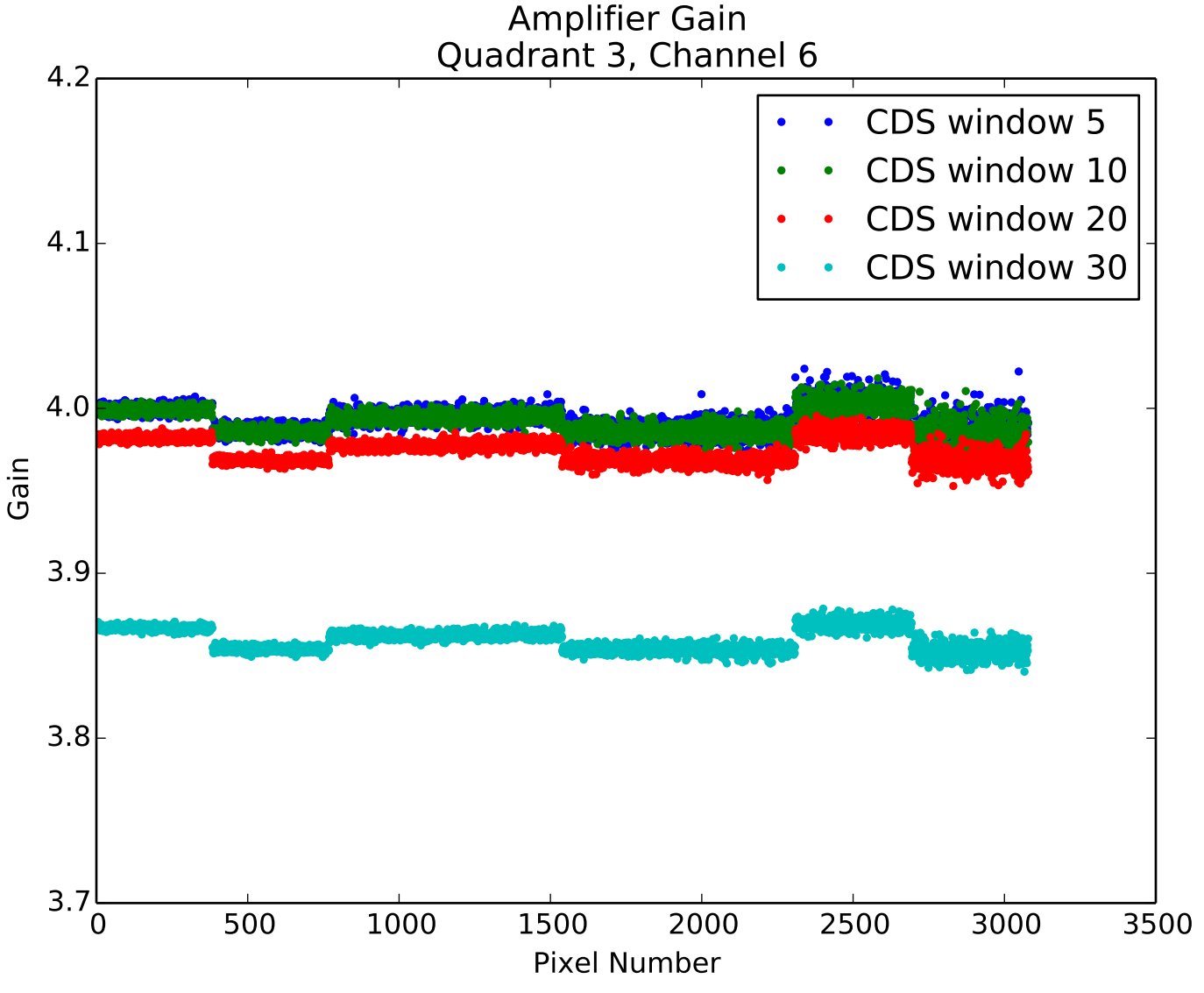

Amplifier Gain
Quadrant 3, Channel 5
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

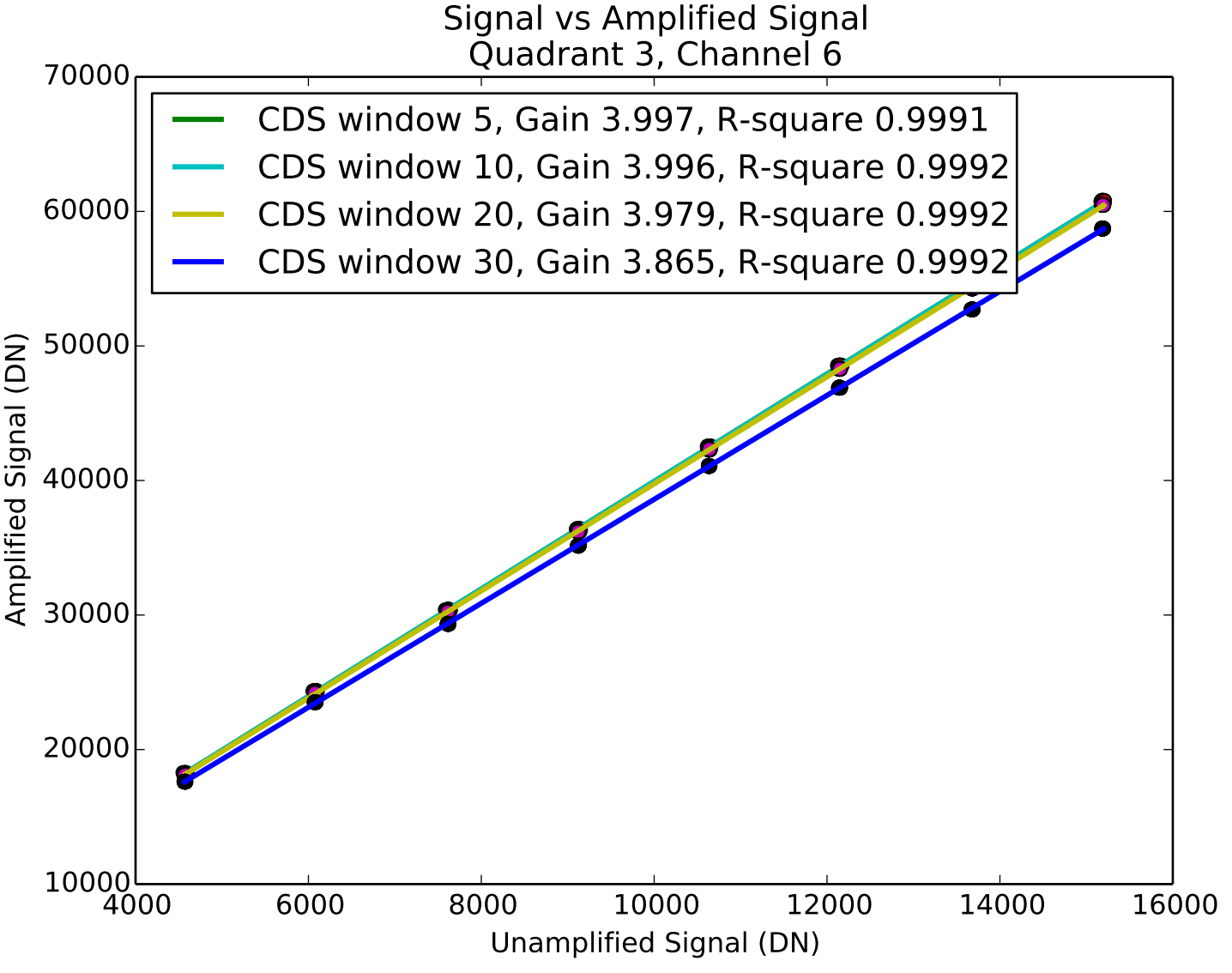

Signal vs Amplified Signal
Quadrant 3, Channel 5
CDS window 5, Gain 3.996, R-square 0.9991
CDS window 10, Gain 3.993, R-square 0.9992
CDS window 20, Gain 3.974, R-square 0.9992
CDS window 30, Gain 3.848, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

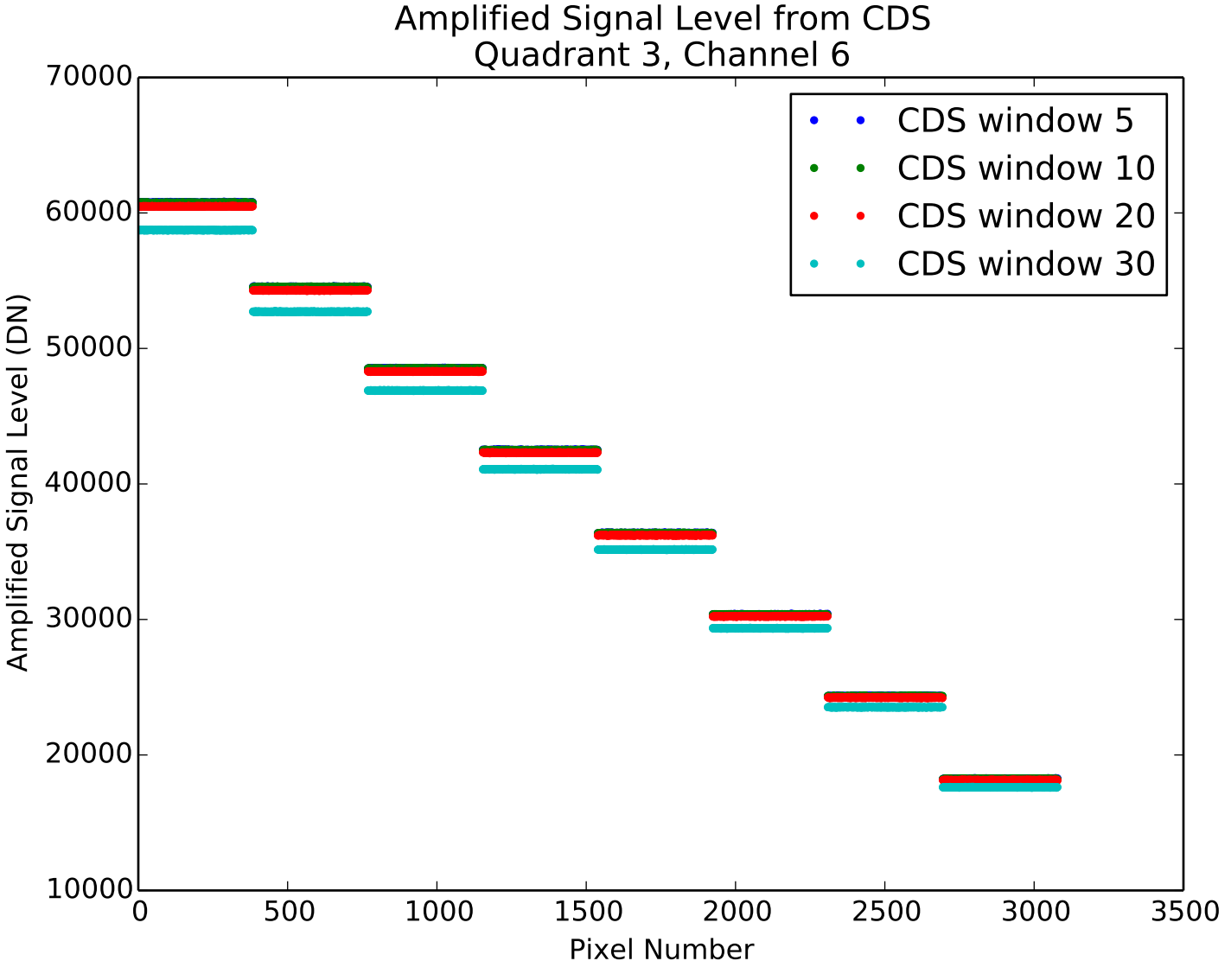

Amplified Signal Level from CDS
Quadrant 3, Channel 5
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

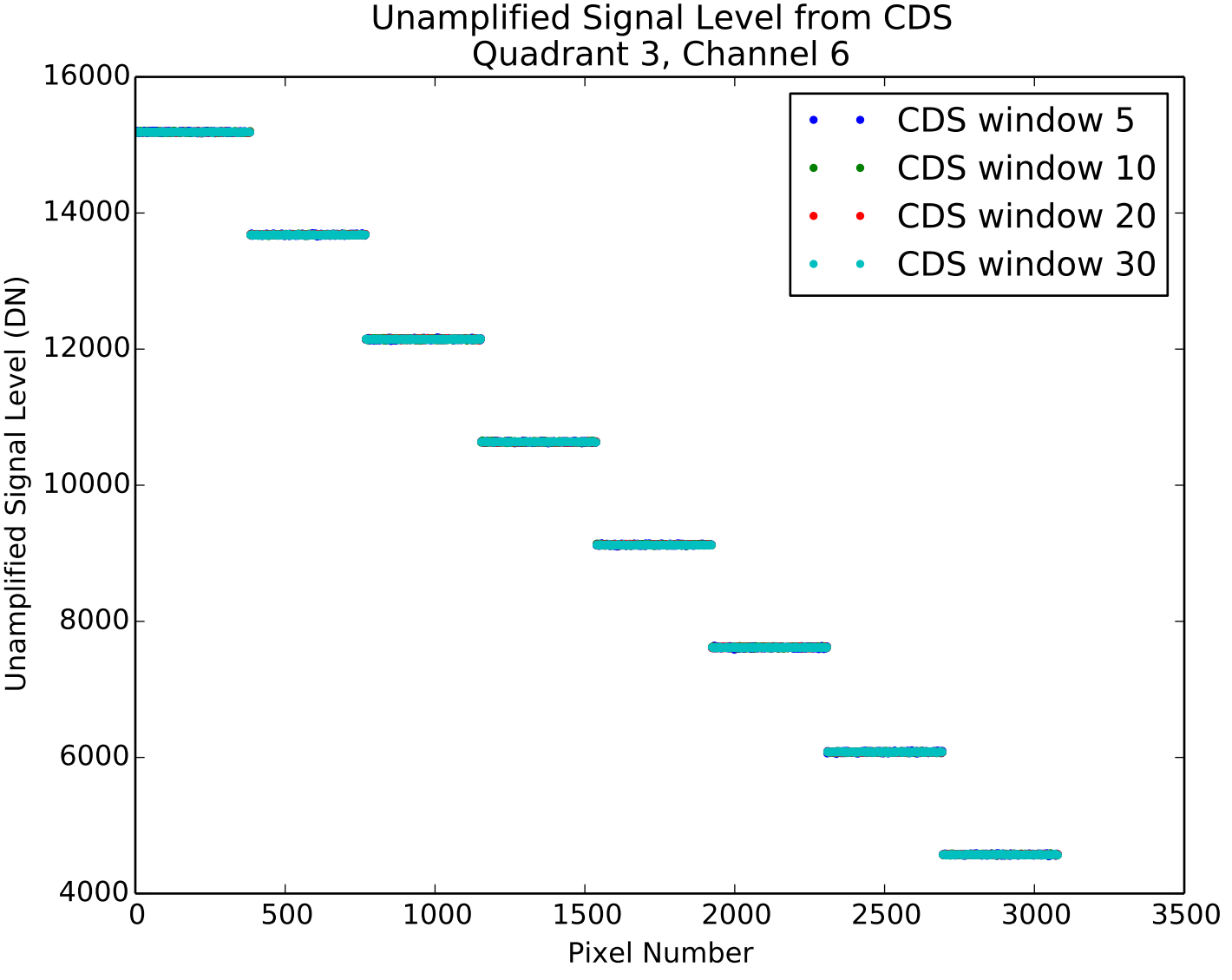

Unamplified Signal Level from CDS
Quadrant 3, Channel 5
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

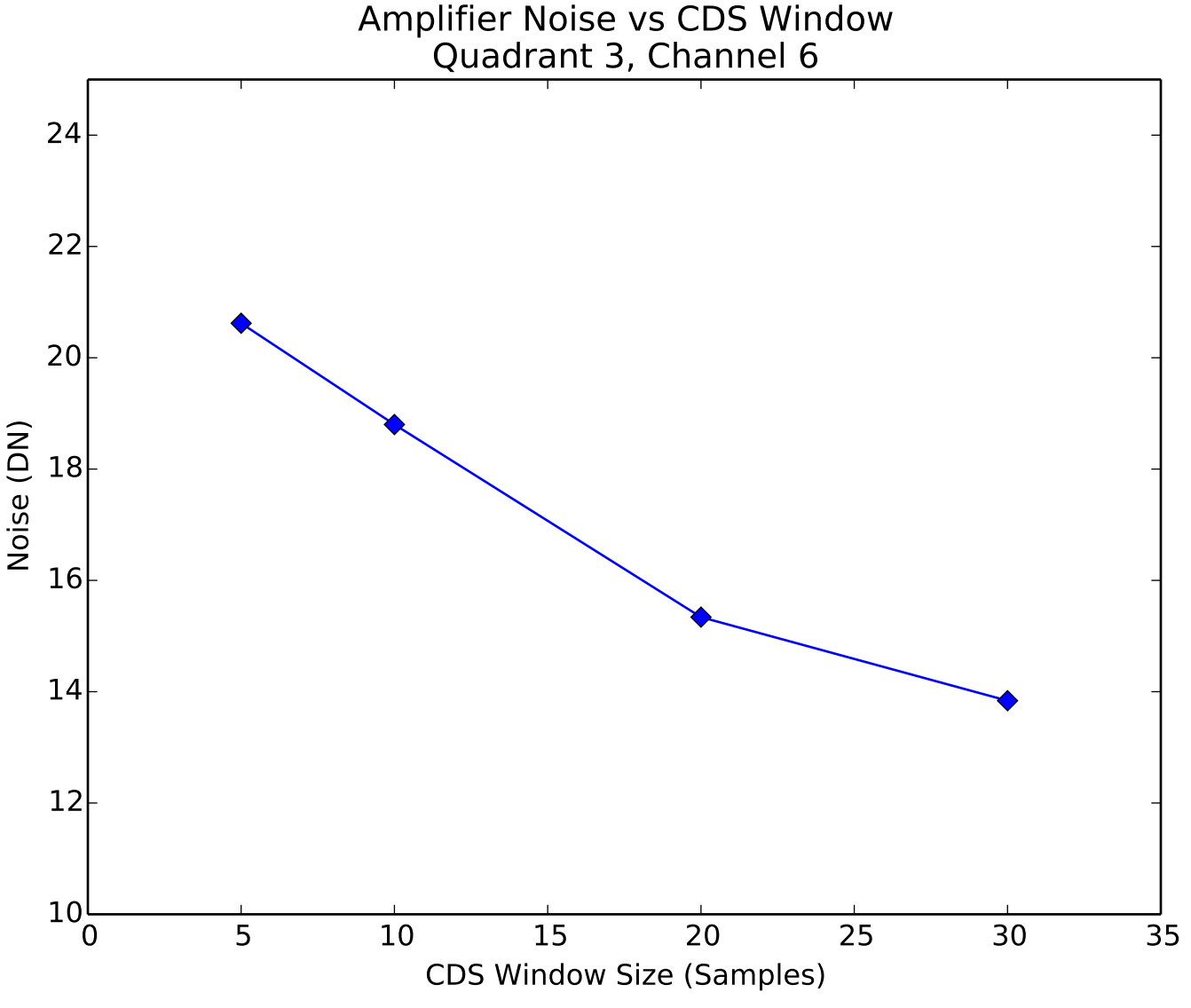

Amplifier Noise vs CDS Window
Quadrant 3, Channel 5
Noise (DN)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35
CDS Window Size (Samples)

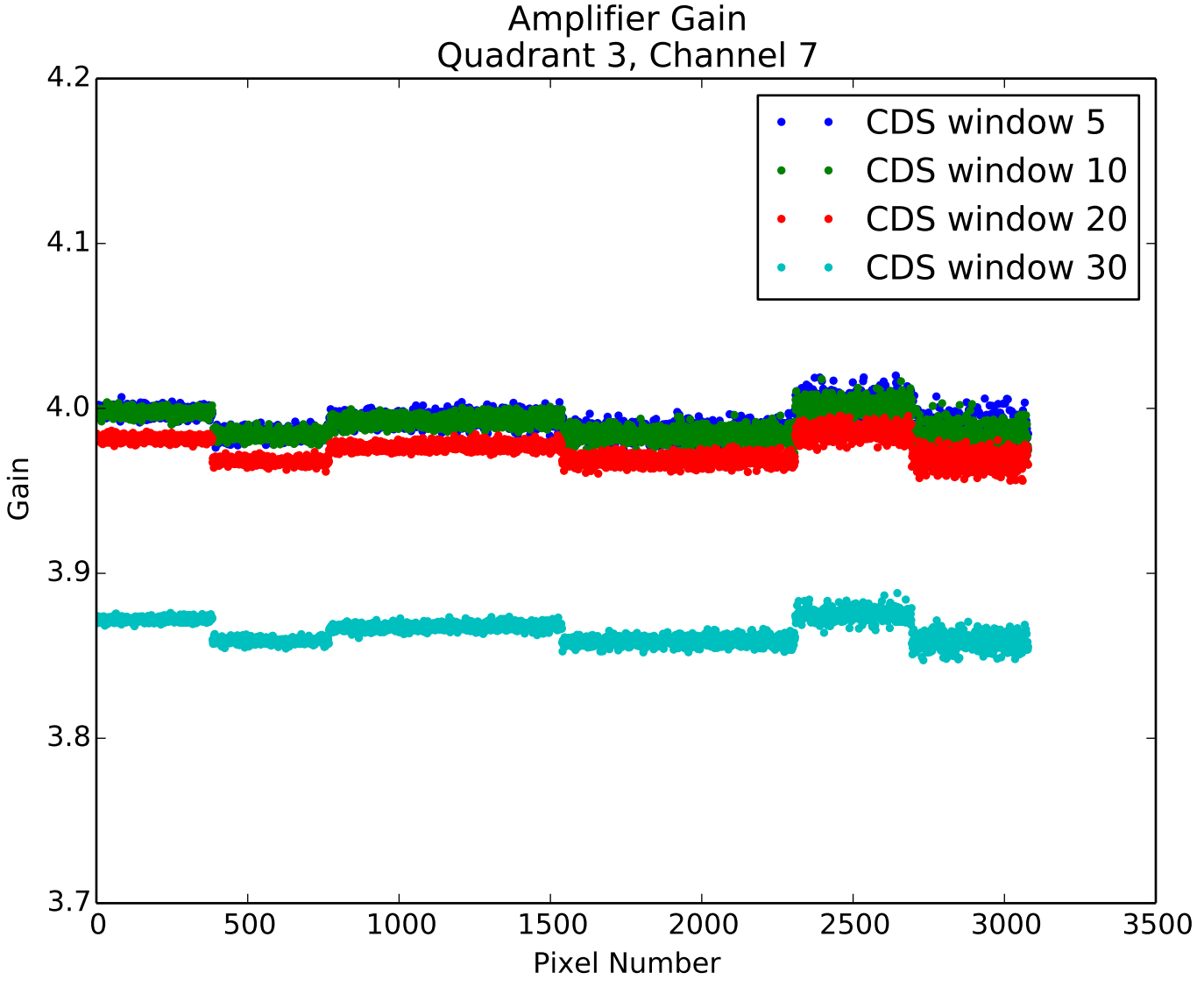

Amplifier Gain
Quadrant 3, Channel 6
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

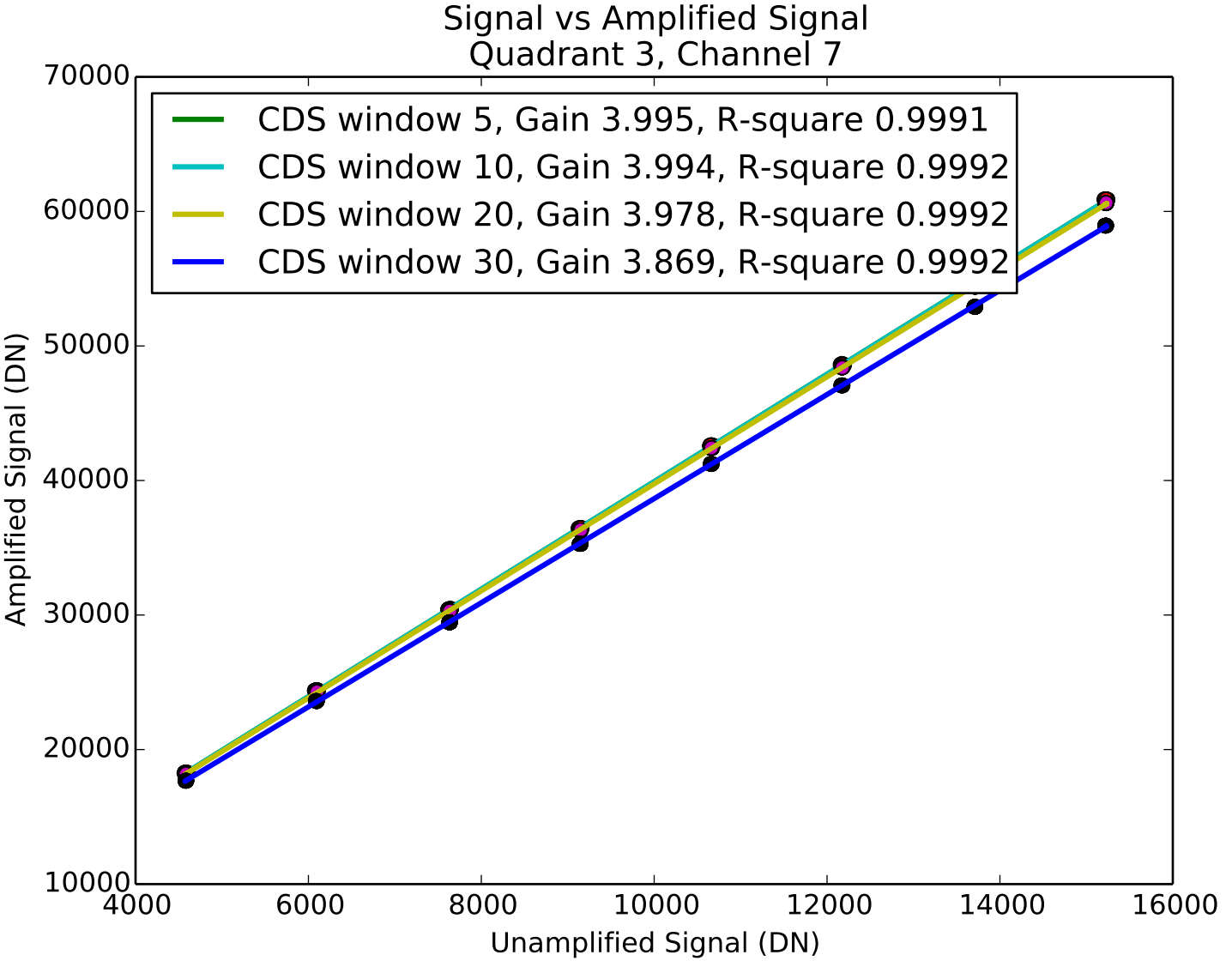

Signal vs Amplified Signal
Quadrant 3, Channel 6
CDS window 5, Gain 3.997, R-square 0.9991
CDS window 10, Gain 3.996, R-square 0.9992
CDS window 20, Gain 3.979, R-square 0.9992
CDS window 30, Gain 3.865, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

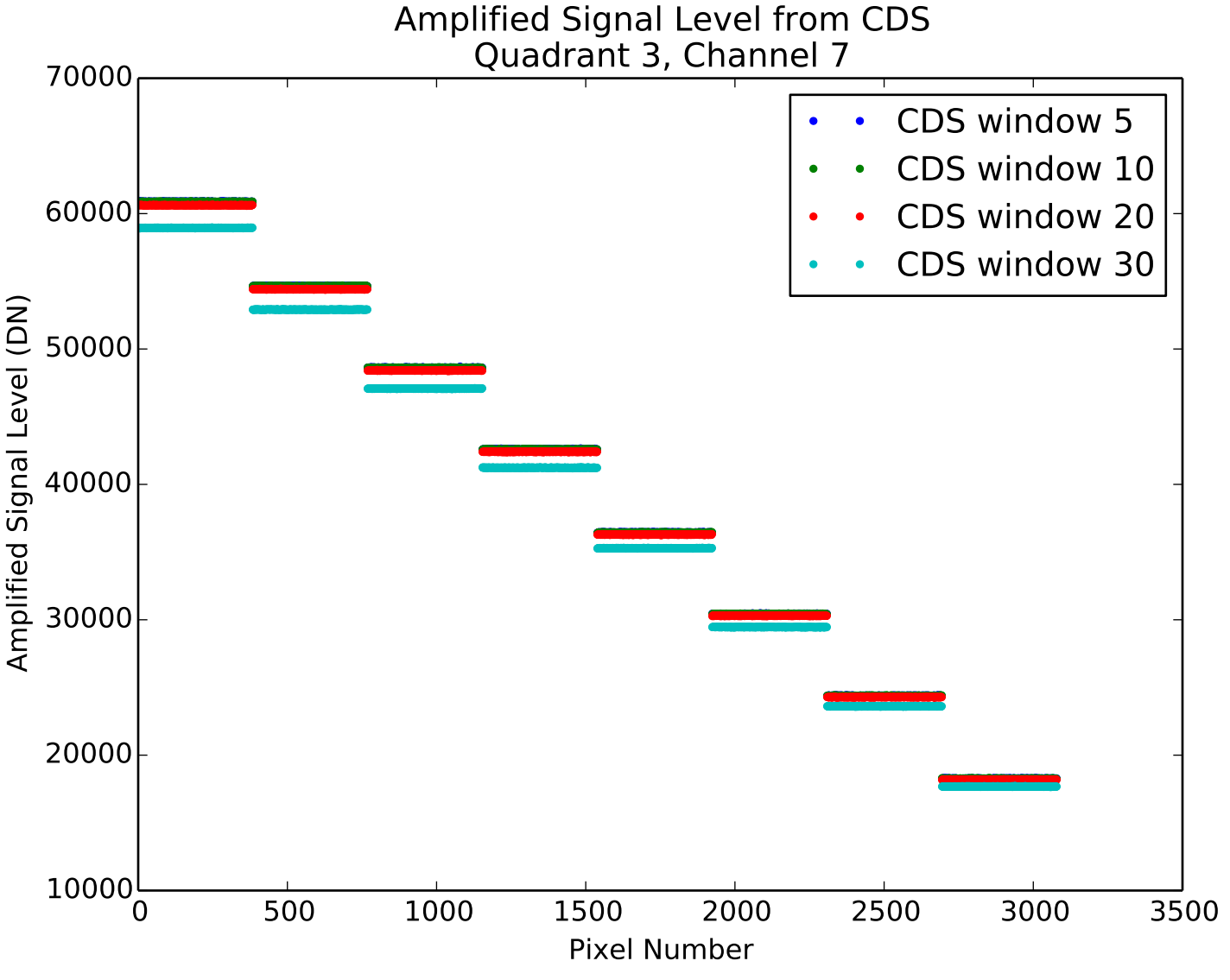

Amplified Signal Level from CDS
Quadrant 3, Channel 6
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

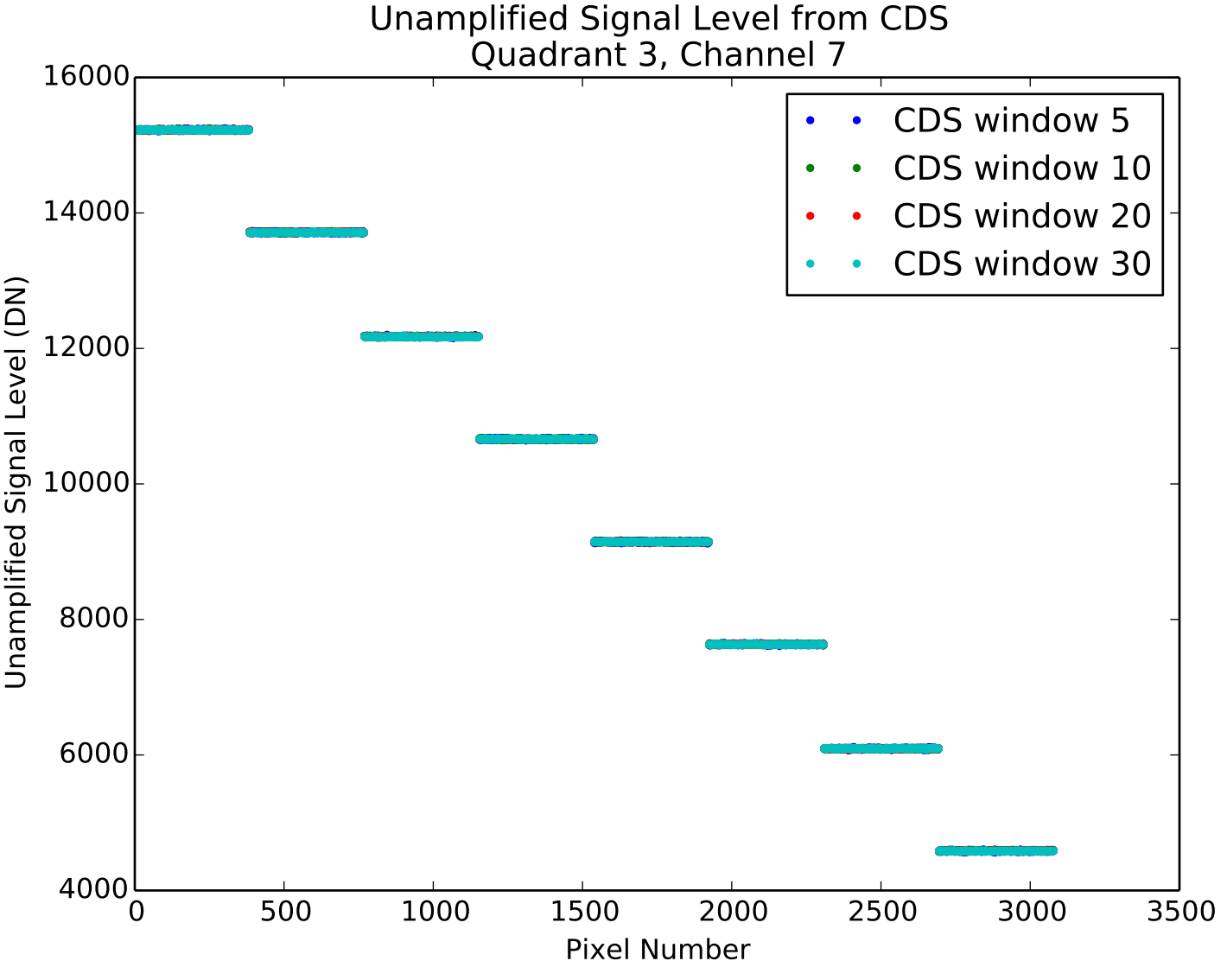

Unamplified Signal Level from CDS
Quadrant 3, Channel 6
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

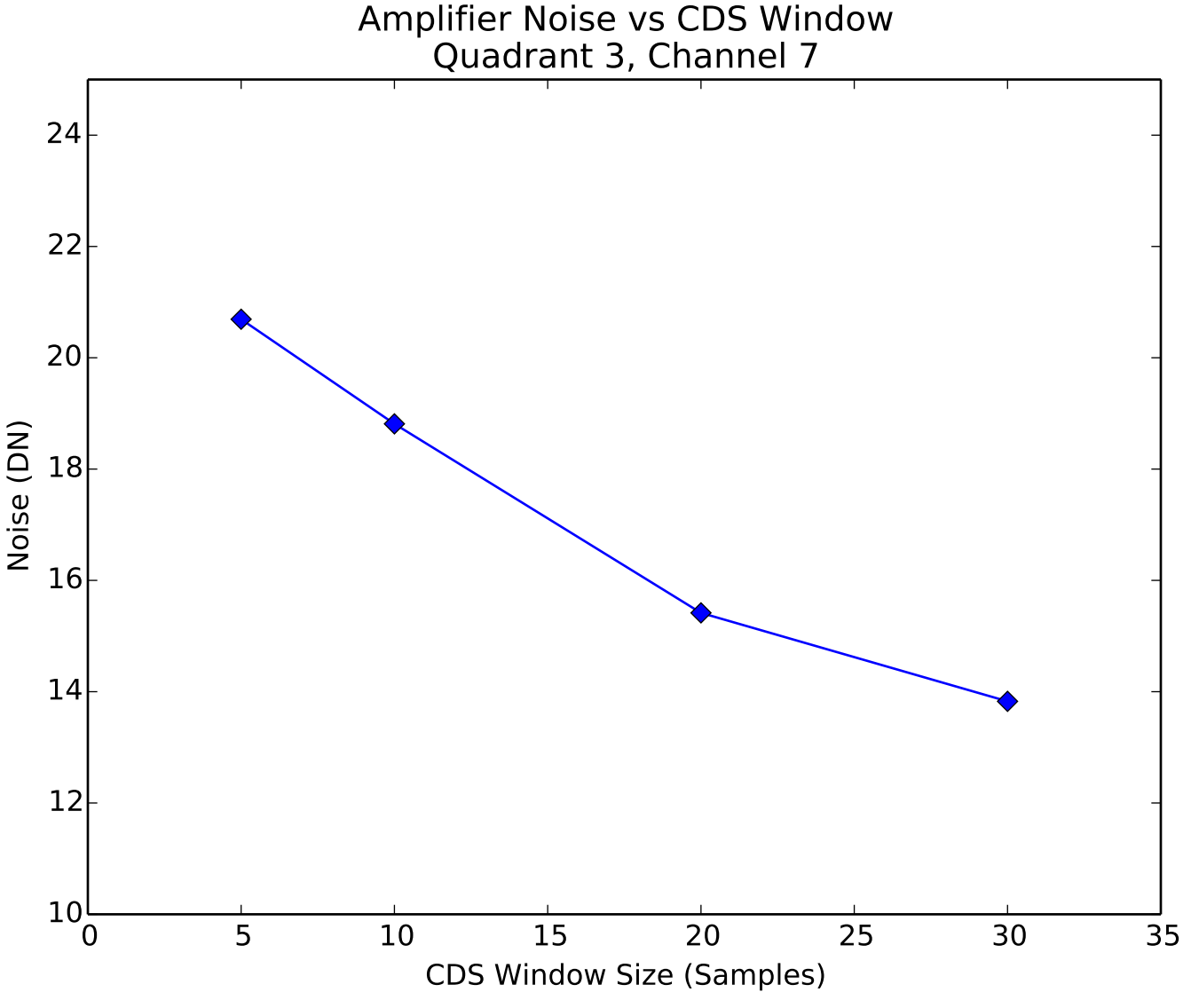

Amplifier Noise vs CDS Window
Quadrant 3, Channel 6
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

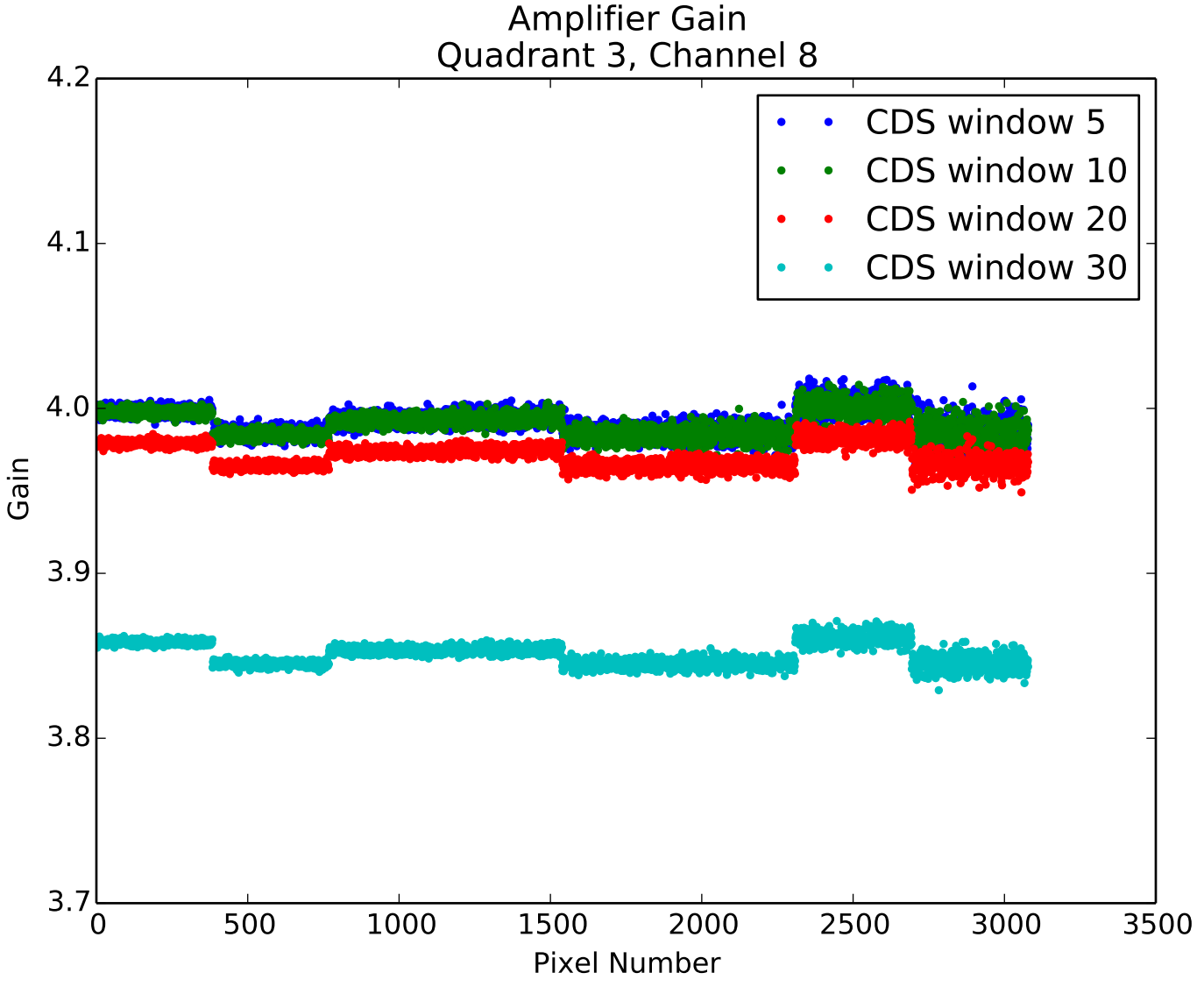

Amplifier Gain
Quadrant 3, Channel 7
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

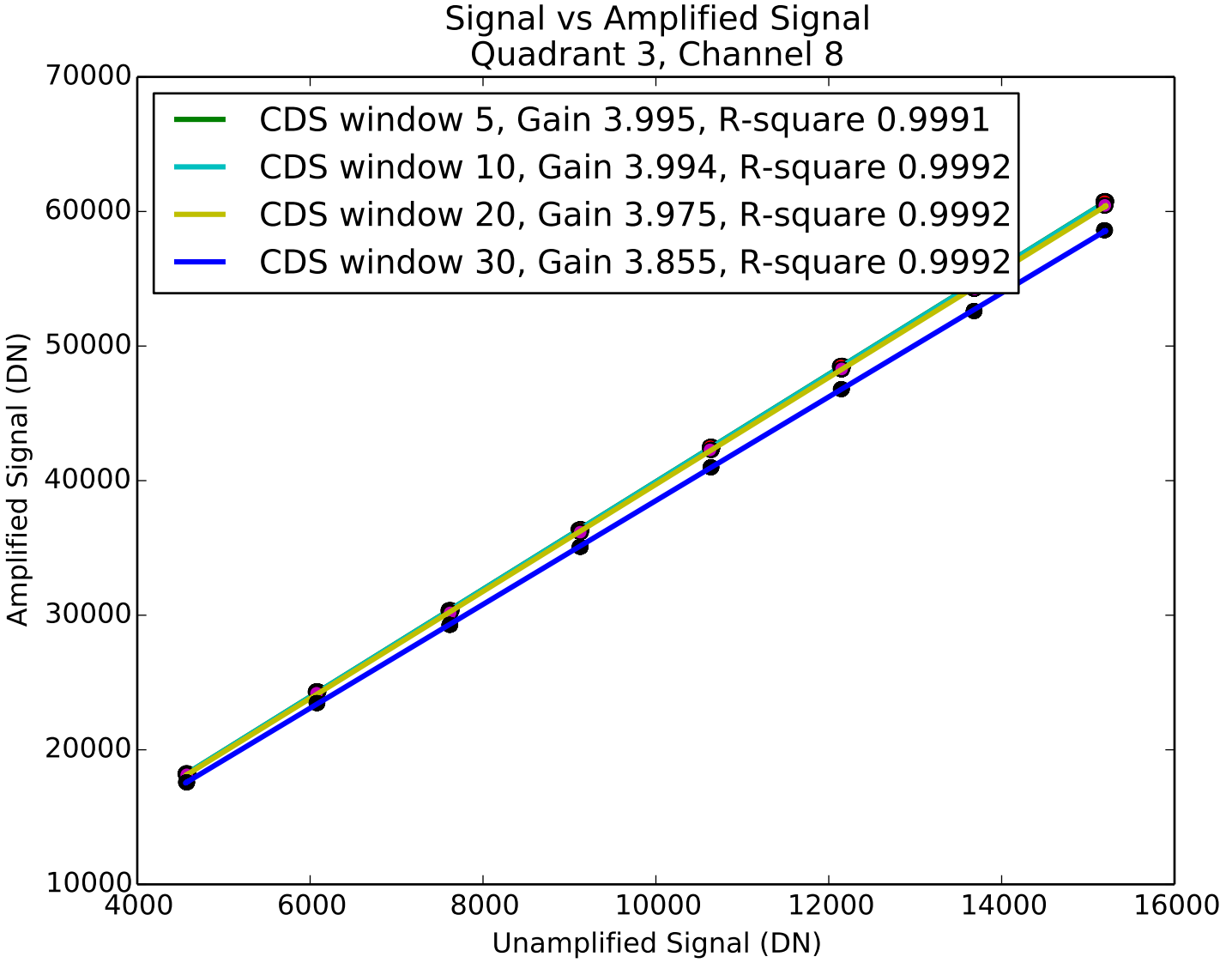

Signal vs Amplified Signal
Quadrant 3, Channel 7
CDS window 5, Gain 3.995, R-square 0.9991
CDS window 10, Gain 3.994, R-square 0.9992
CDS window 20, Gain 3.978, R-square 0.9992
CDS window 30, Gain 3.869, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

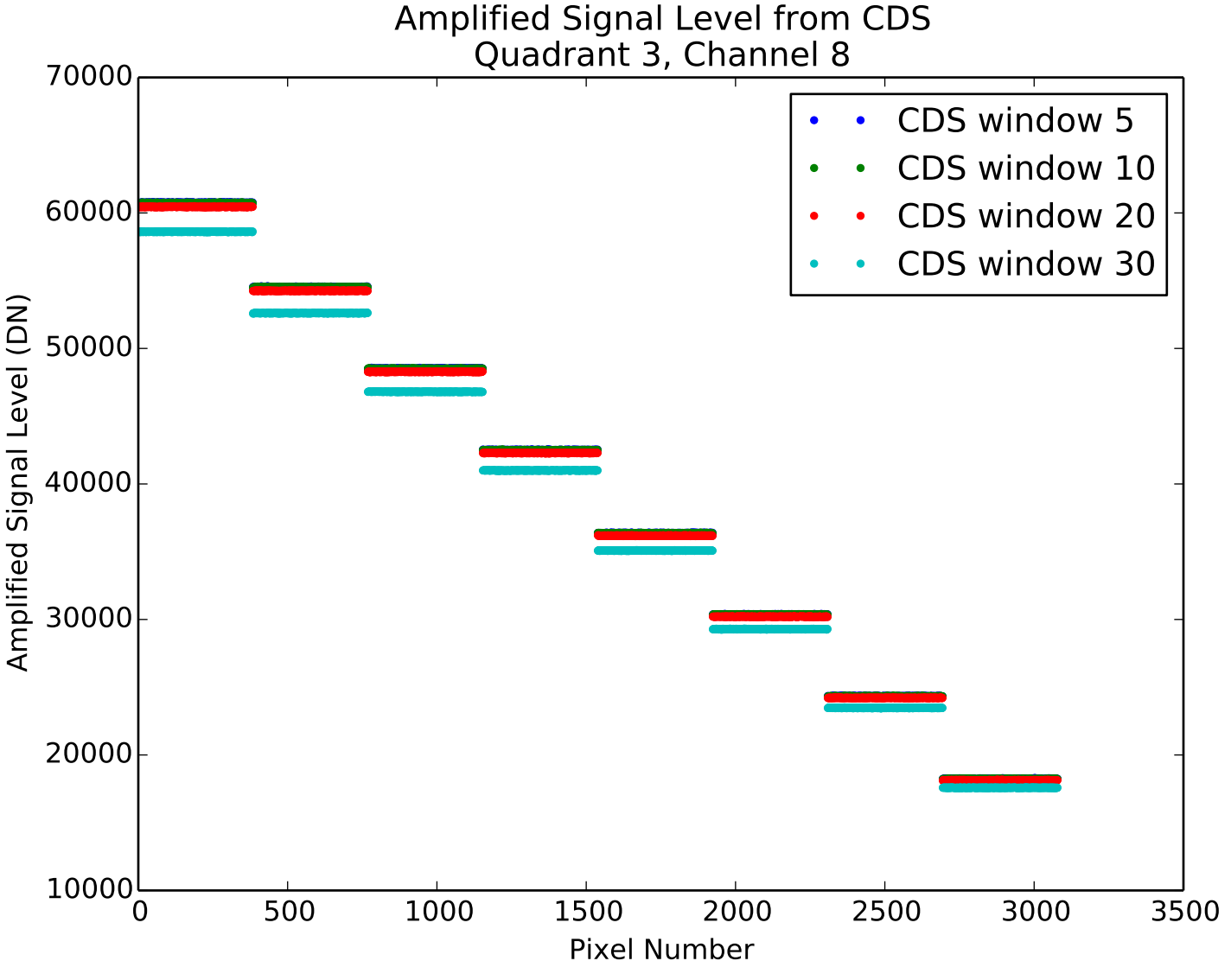

Amplified Signal Level from CDS
Quadrant 3, Channel 7
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

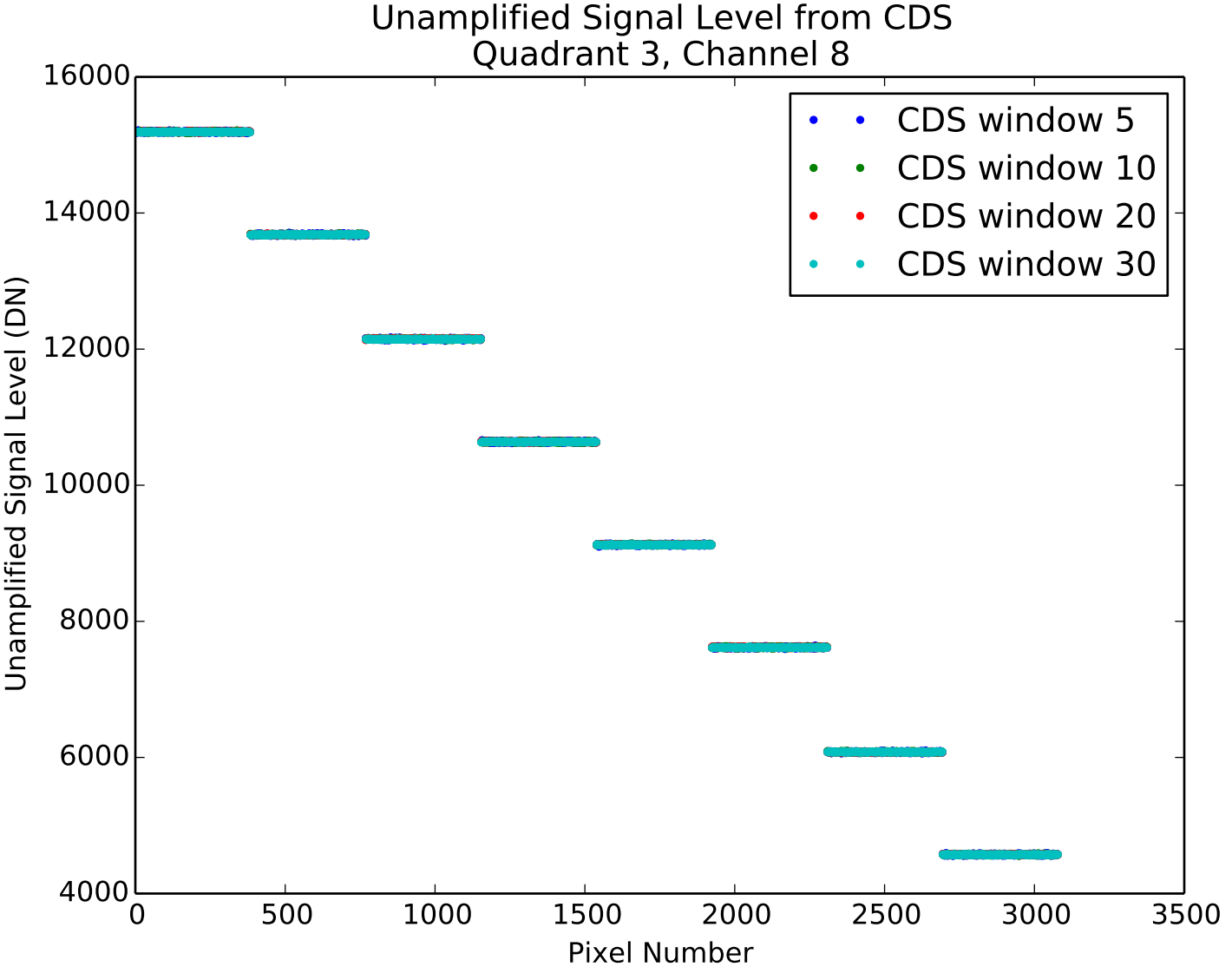

Unamplified Signal Level from CDS
Quadrant 3, Channel 7
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

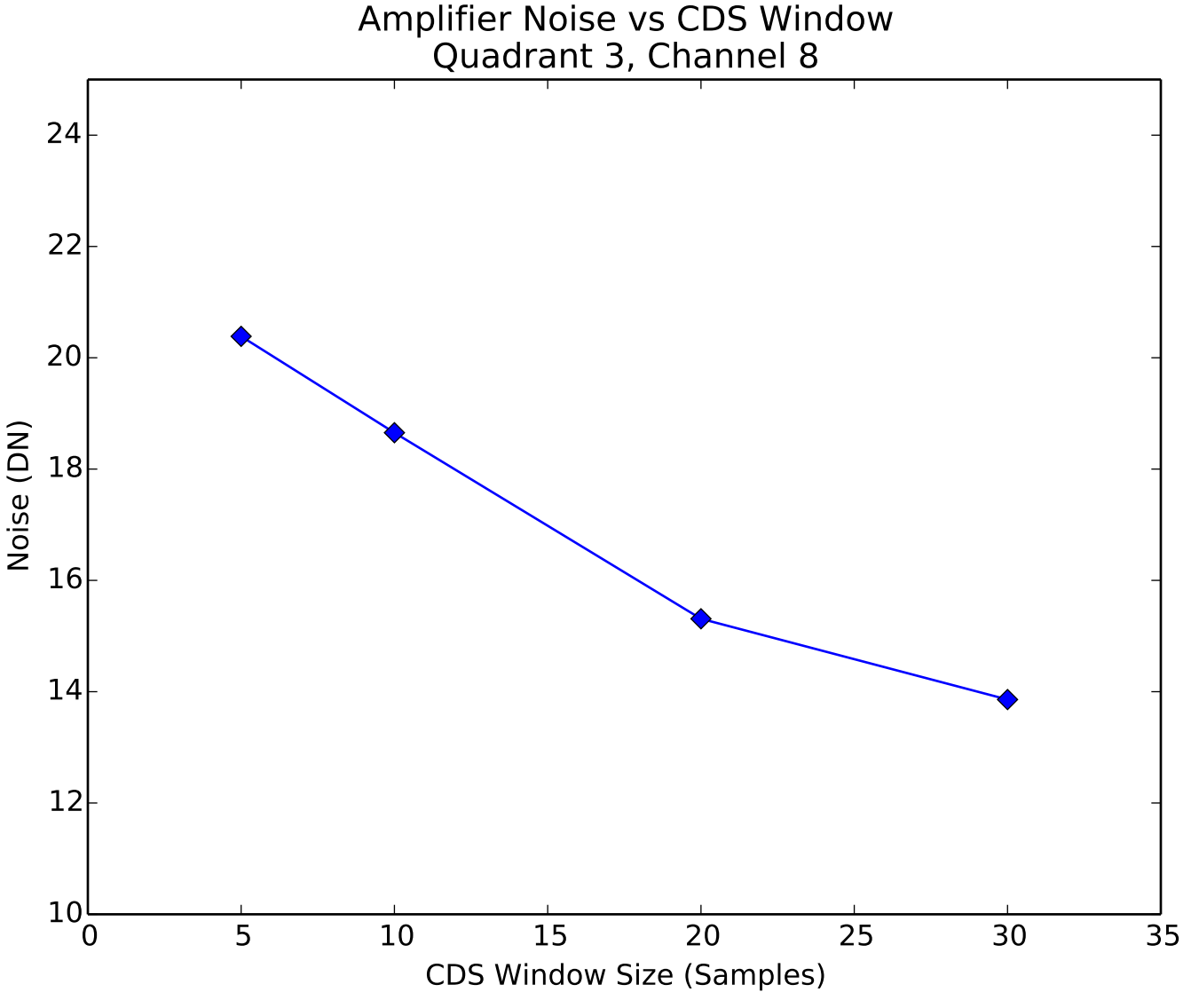

Amplifier Noise vs CDS Window
Quadrant 3, Channel 7
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

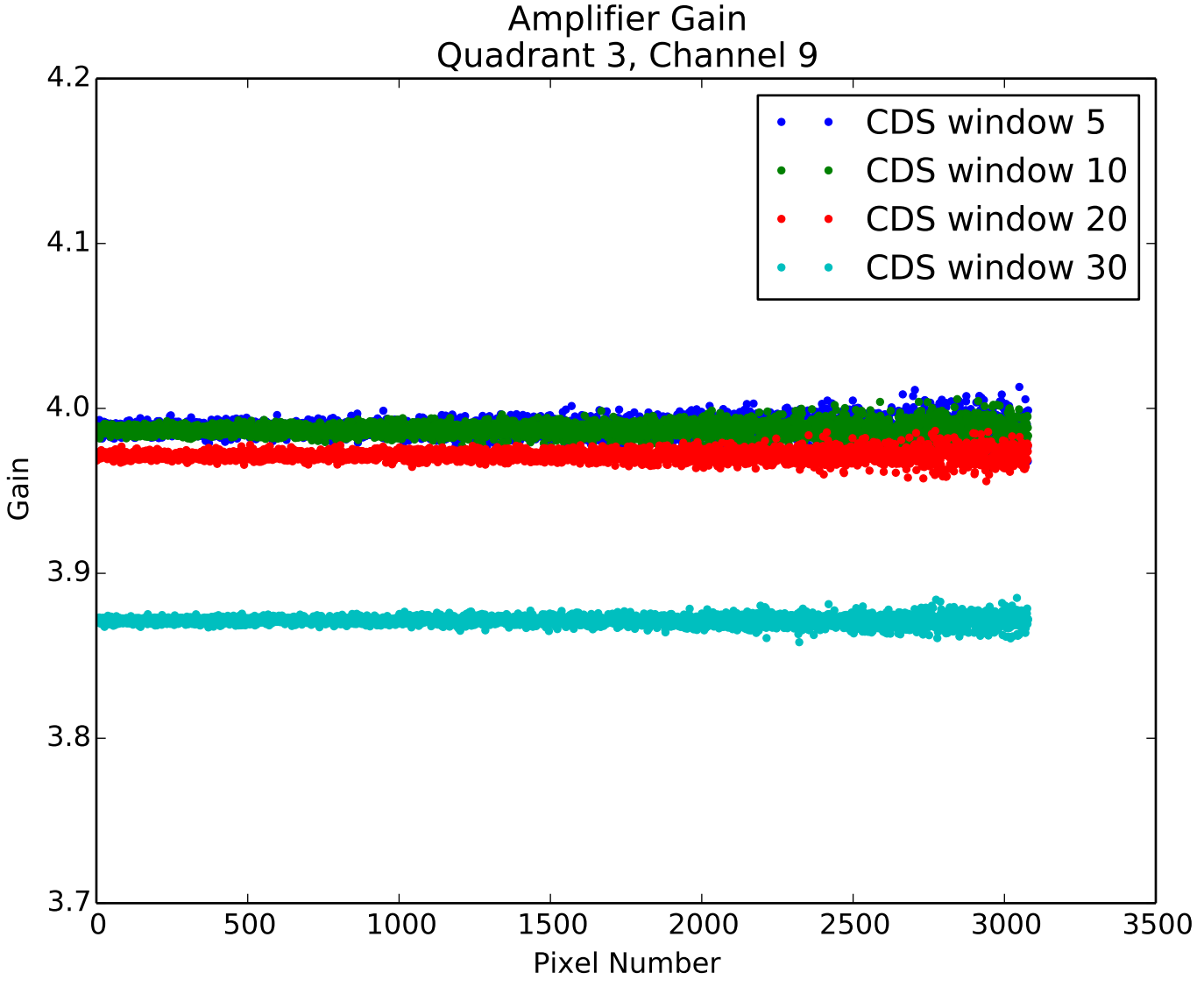

Amplifier Gain
Quadrant 3, Channel 8
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

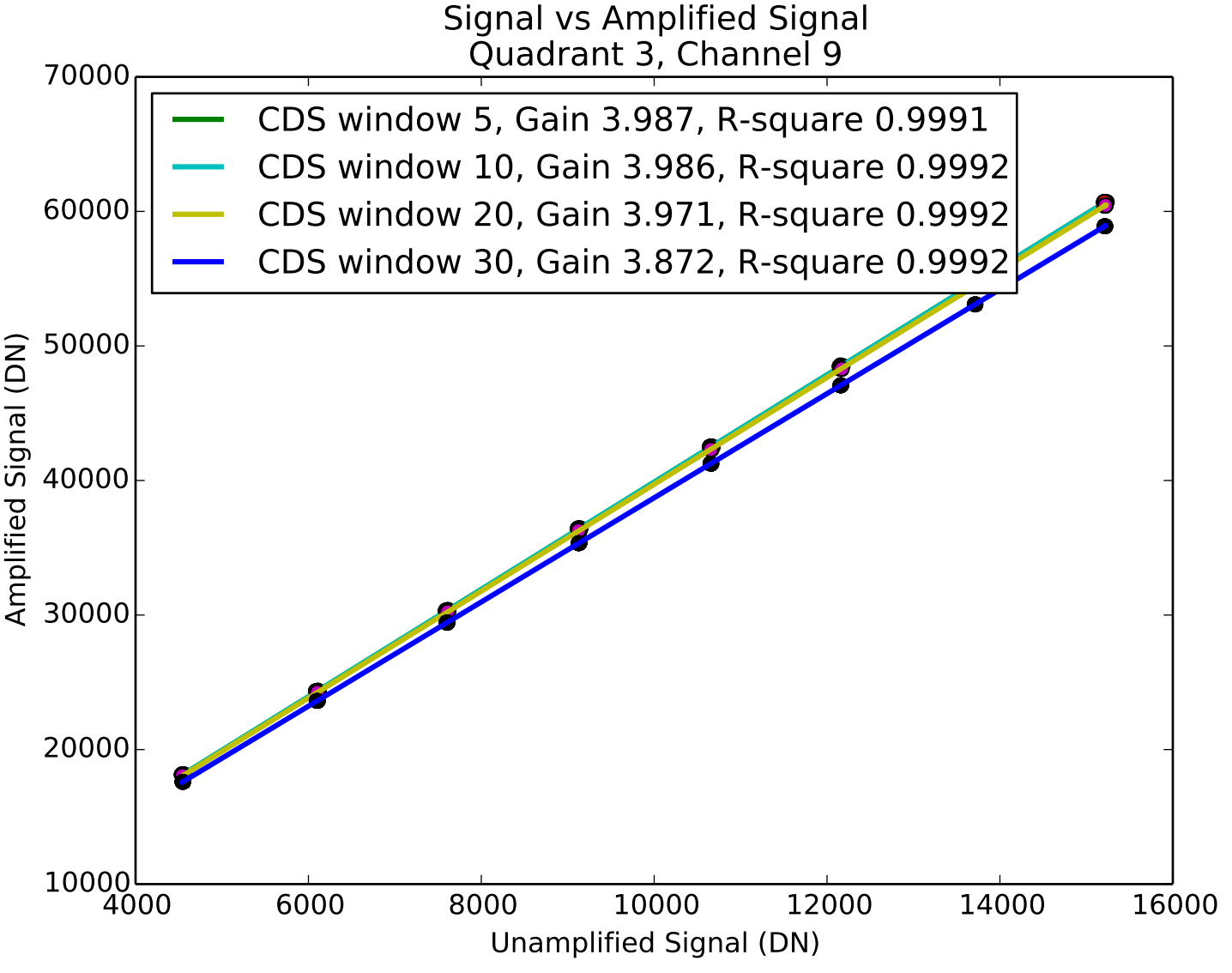

Signal vs Amplified Signal
Quadrant 3, Channel 8
CDS window 5, Gain 3.995, R-square 0.9991
CDS window 10, Gain 3.994, R-square 0.9992
CDS window 20, Gain 3.975, R-square 0.9992
CDS window 30, Gain 3.855, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

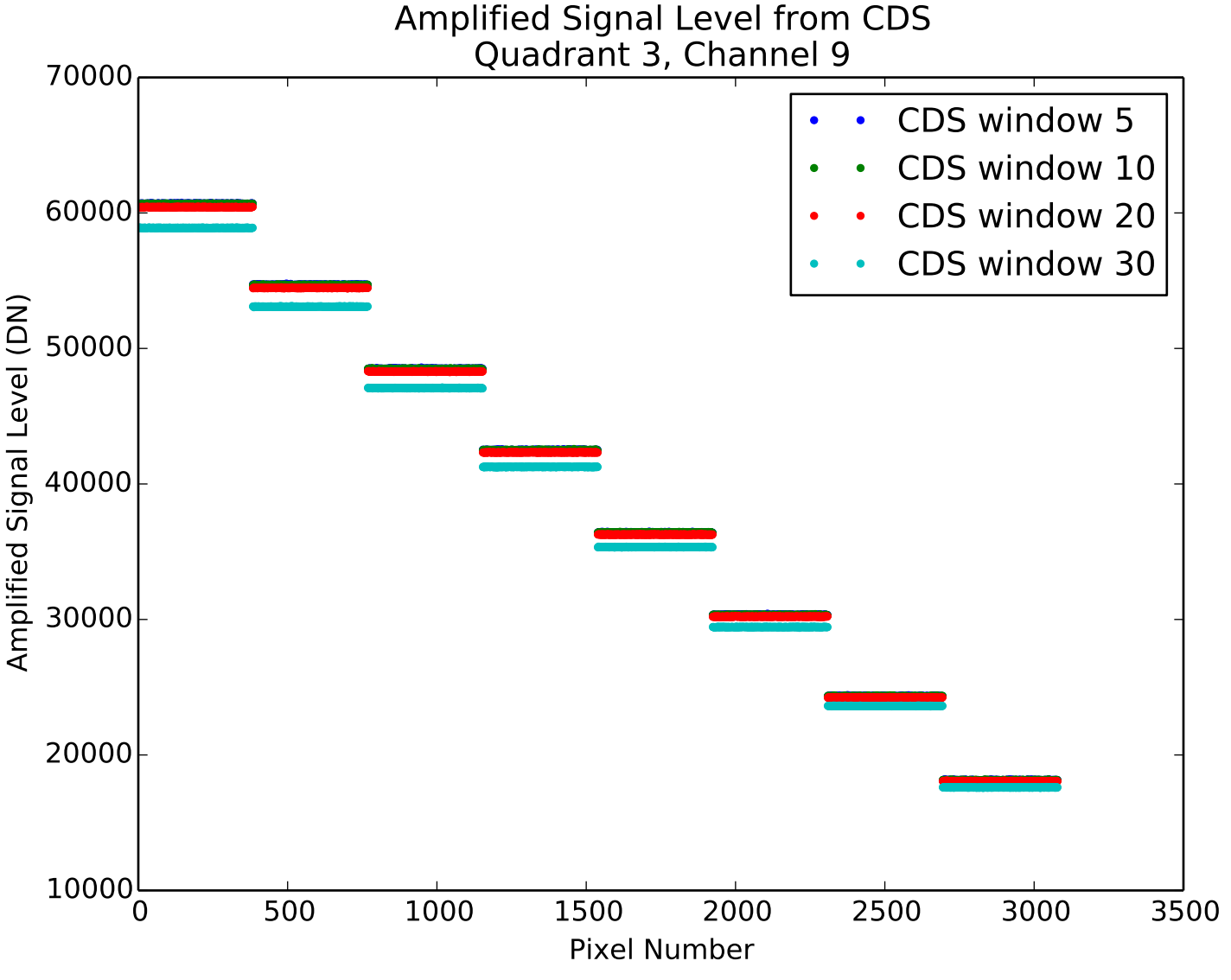

Amplified Signal Level from CDS
Quadrant 3, Channel 8
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

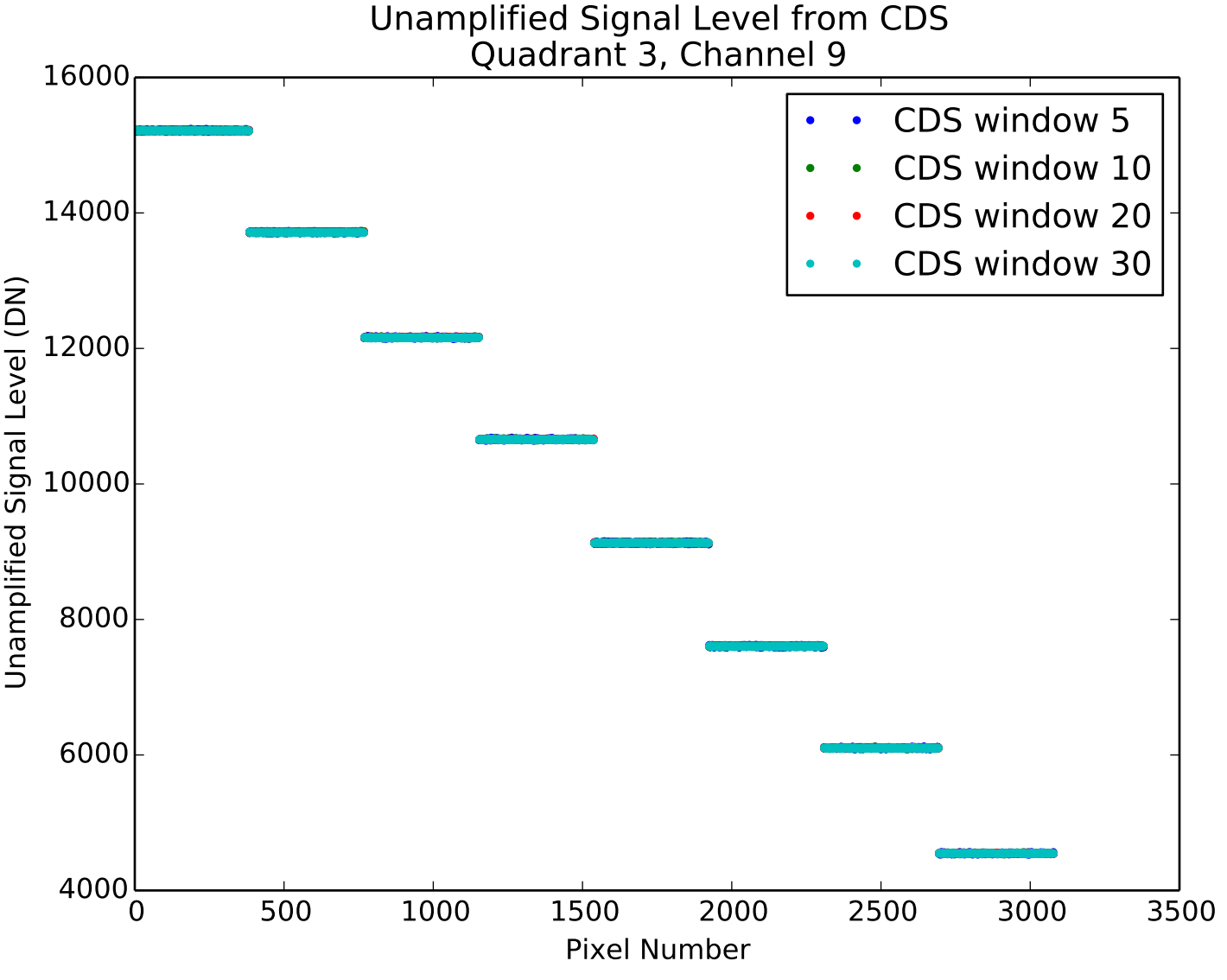

Unamplified Signal Level from CDS
Quadrant 3, Channel 8
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

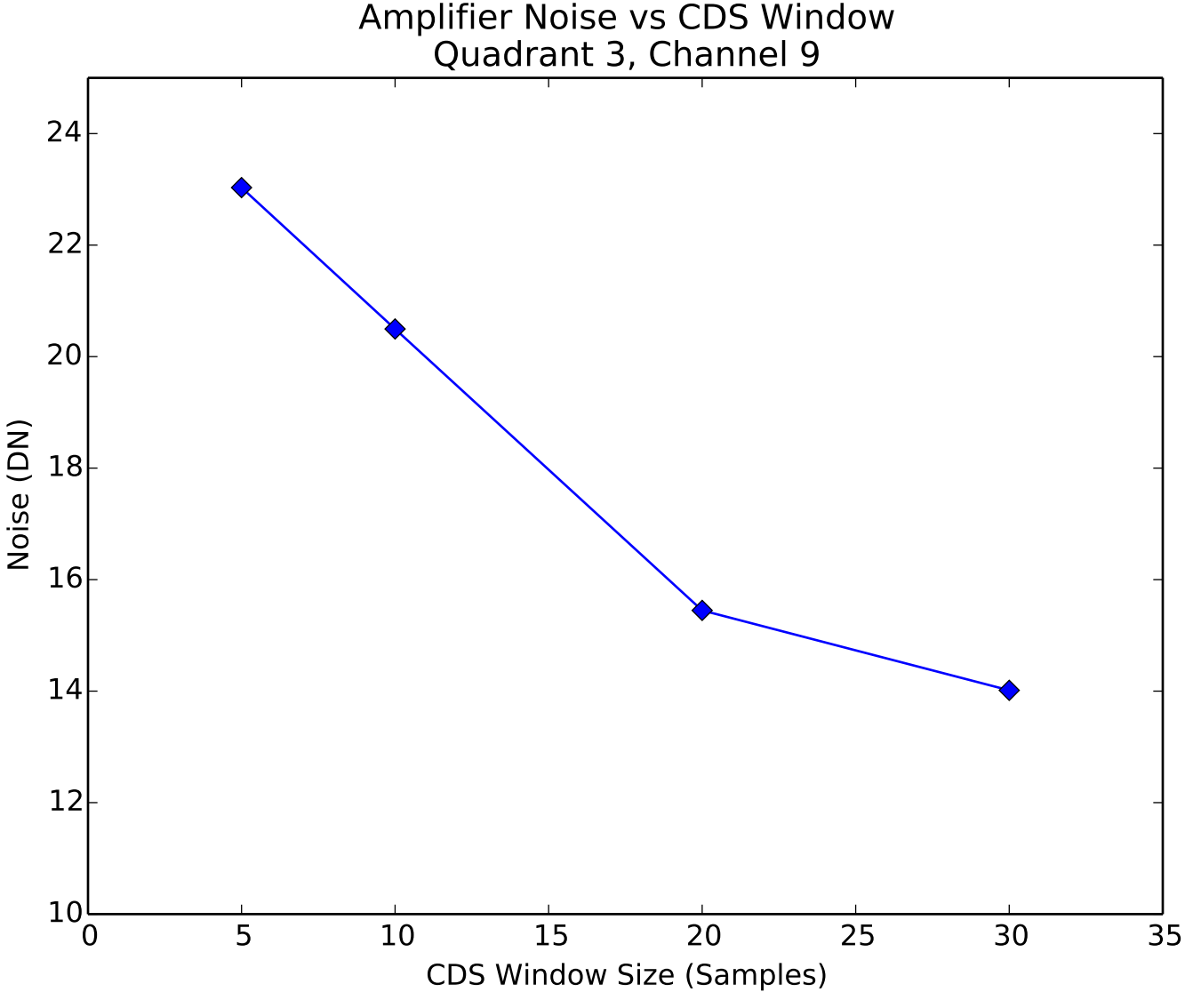

Amplifier Noise vs CDS Window
Quadrant 3, Channel 8
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

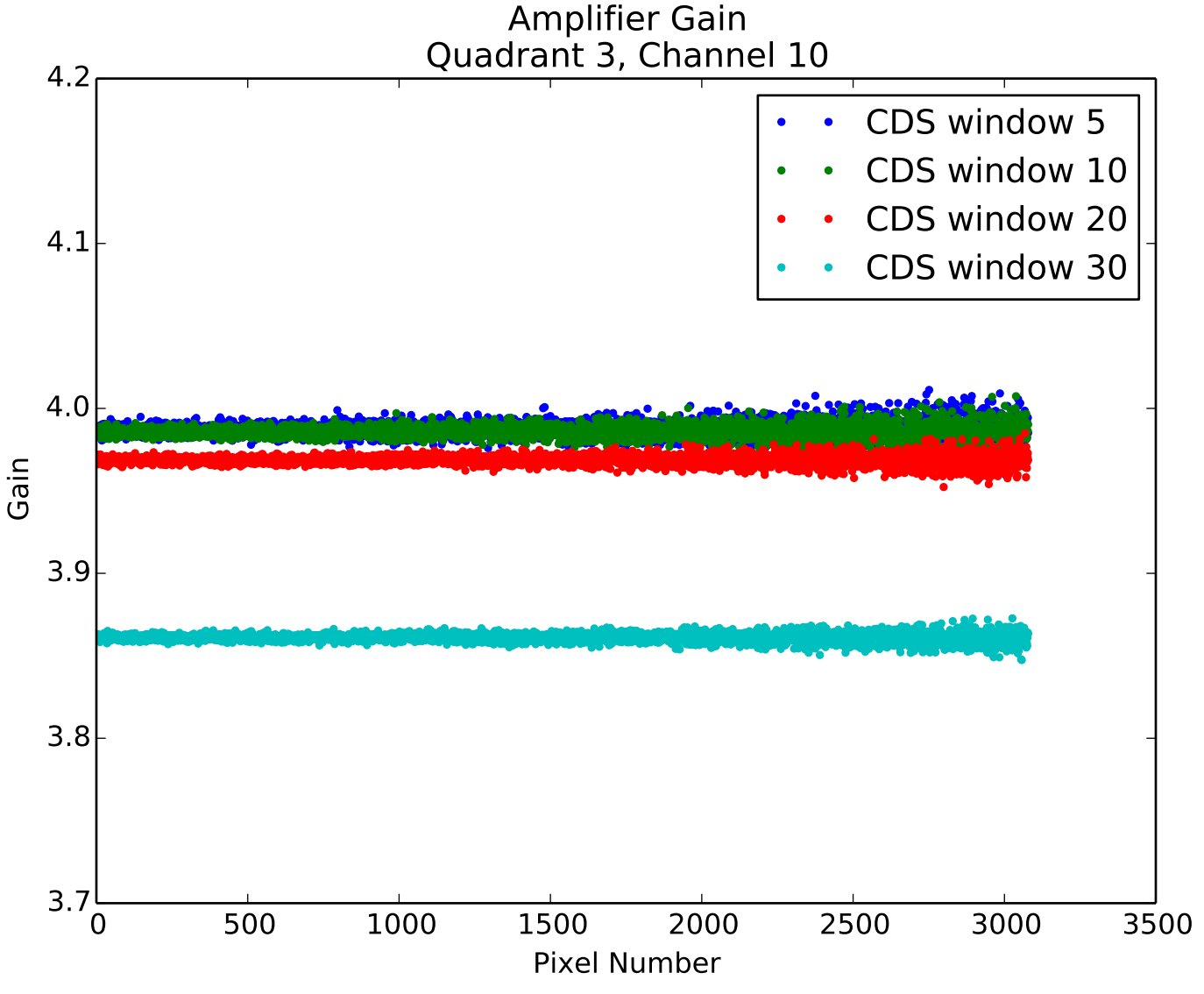

Amplifier Gain
Quadrant 3, Channel 9
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

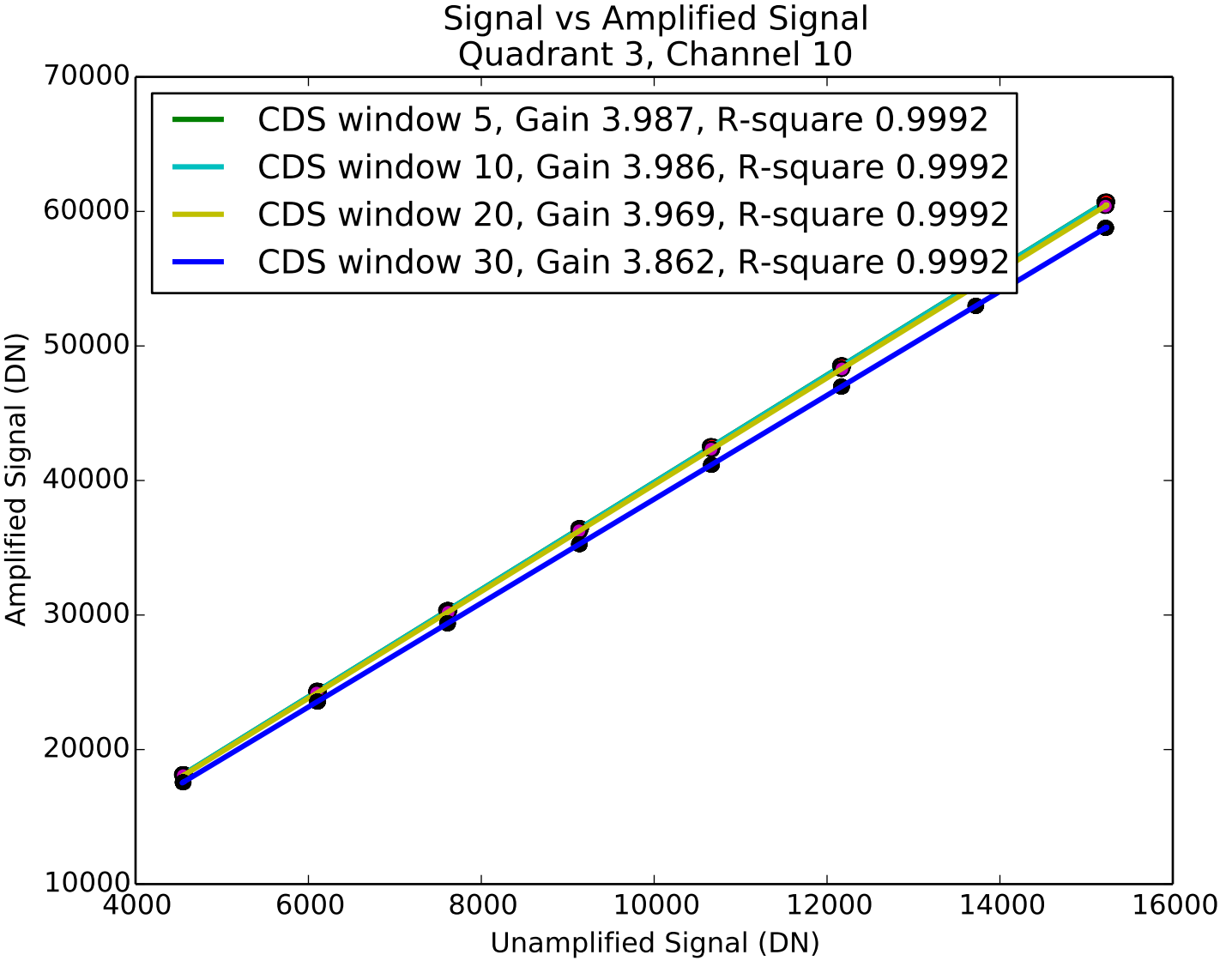

Signal vs Amplified Signal
Quadrant 3, Channel 9
CDS window 5, Gain 3.987, R-square 0.9991
CDS window 10, Gain 3.986, R-square 0.9992
CDS window 20, Gain 3.971, R-square 0.9992
CDS window 30, Gain 3.872, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

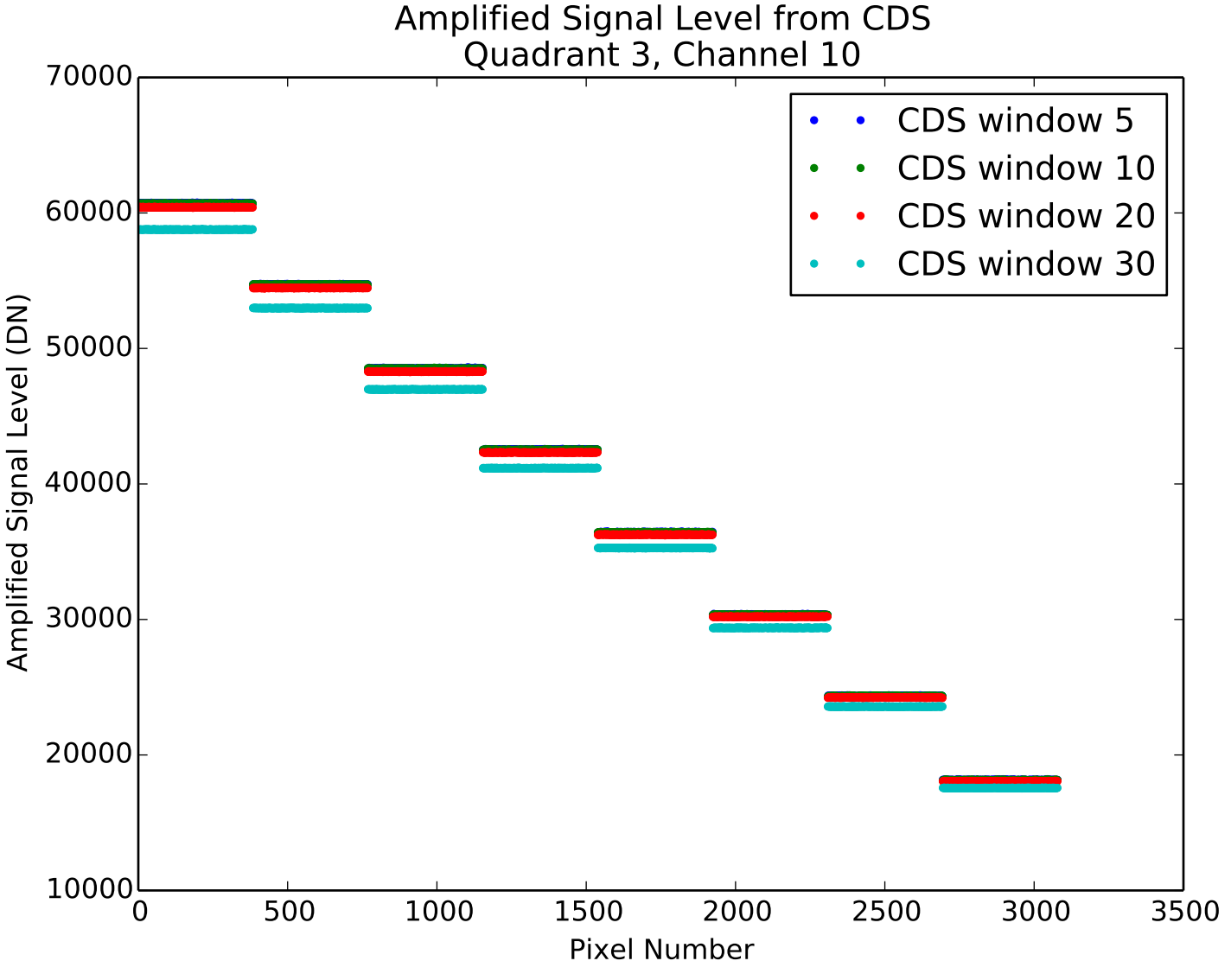

Amplified Signal Level from CDS
Quadrant 3, Channel 9
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

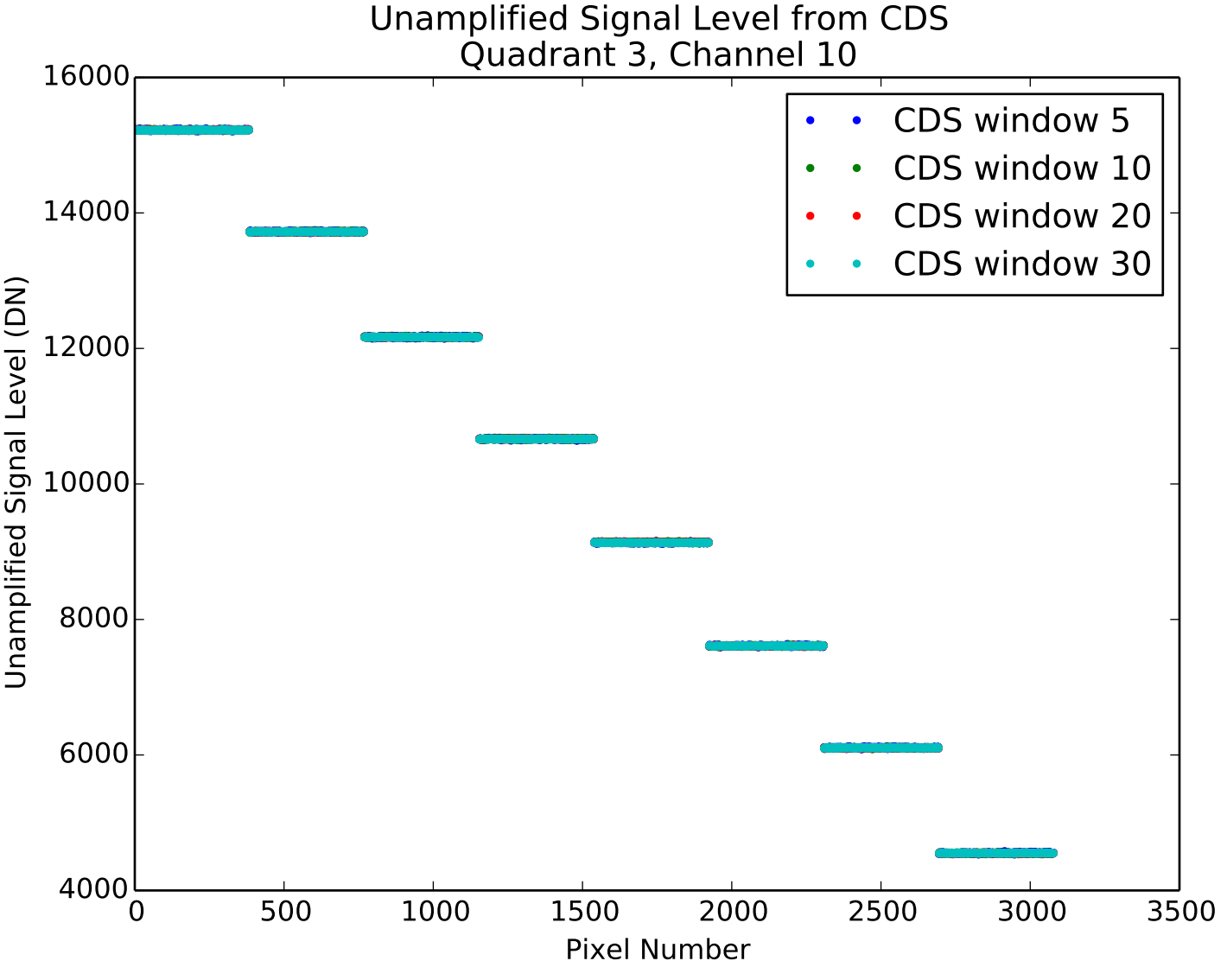

Unamplified Signal Level from CDS
Quadrant 3, Channel 9
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

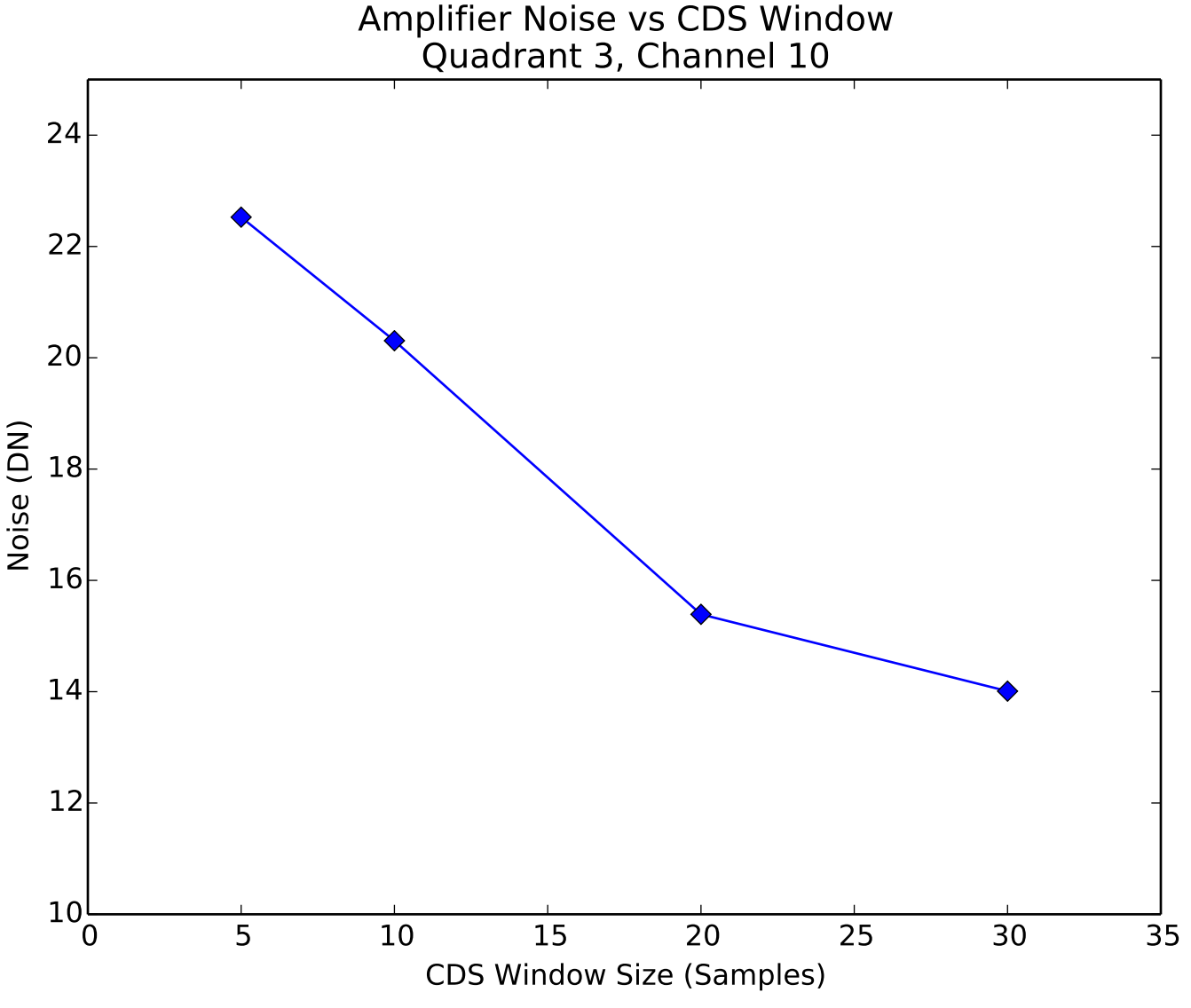

Amplifier Noise vs CDS Window
Quadrant 3, Channel 9
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

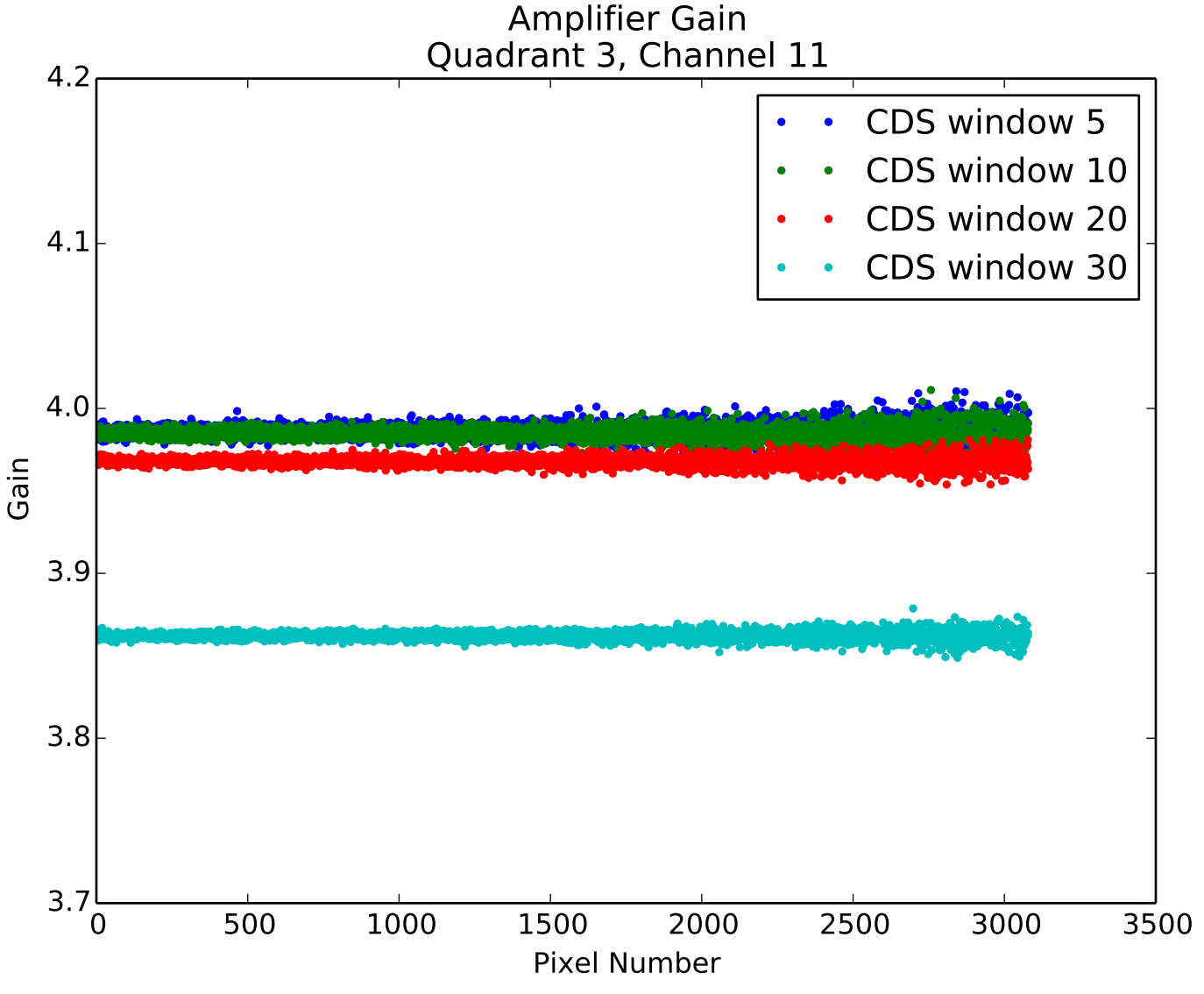

Amplifier Gain
Quadrant 3, Channel 10
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

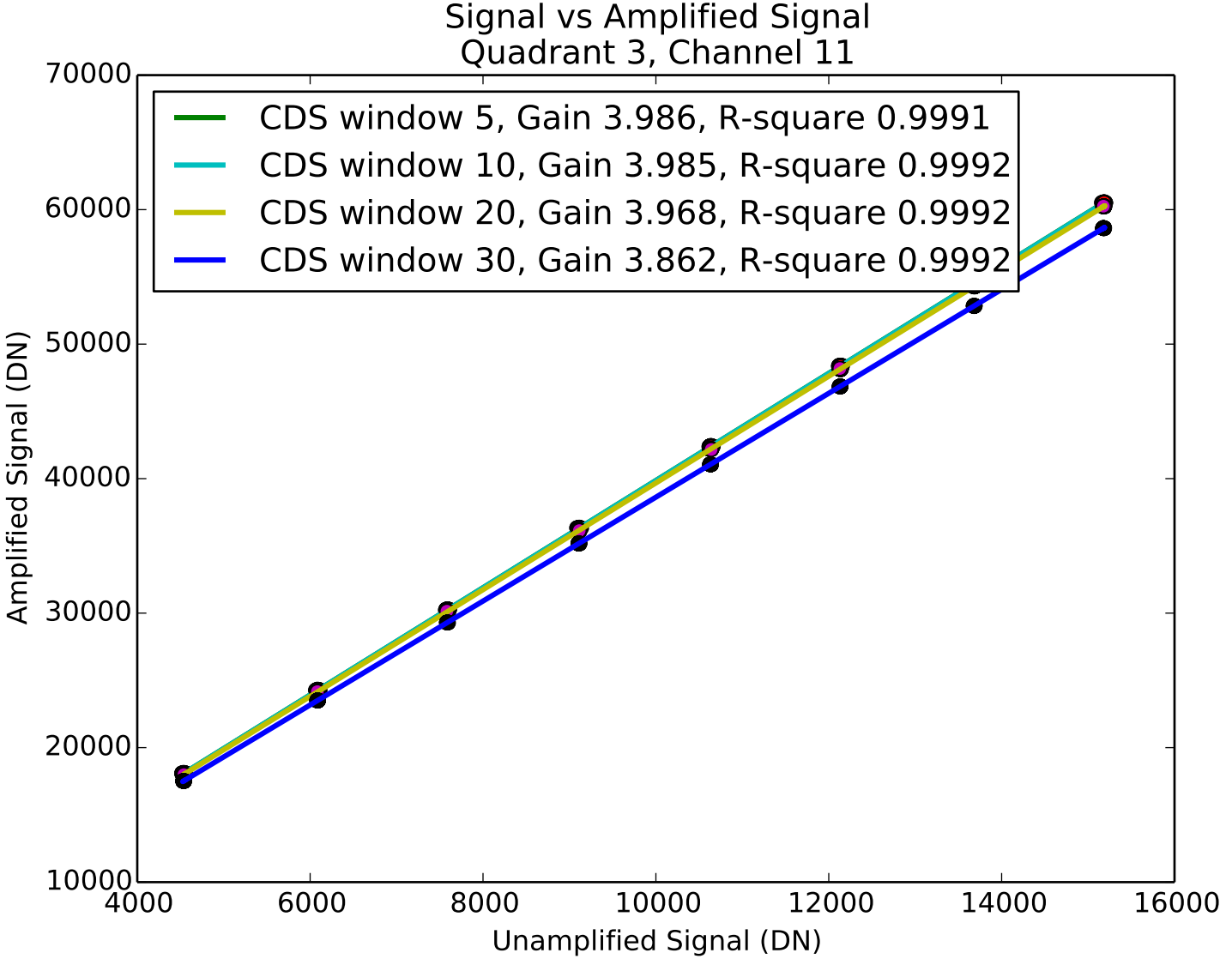

Signal vs Amplified Signal
Quadrant 3, Channel 10
CDS window 5, Gain 3.987, R-square 0.9992
CDS window 10, Gain 3.986, R-square 0.9992
CDS window 20, Gain 3.969, R-square 0.9992
CDS window 30, Gain 3.862, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

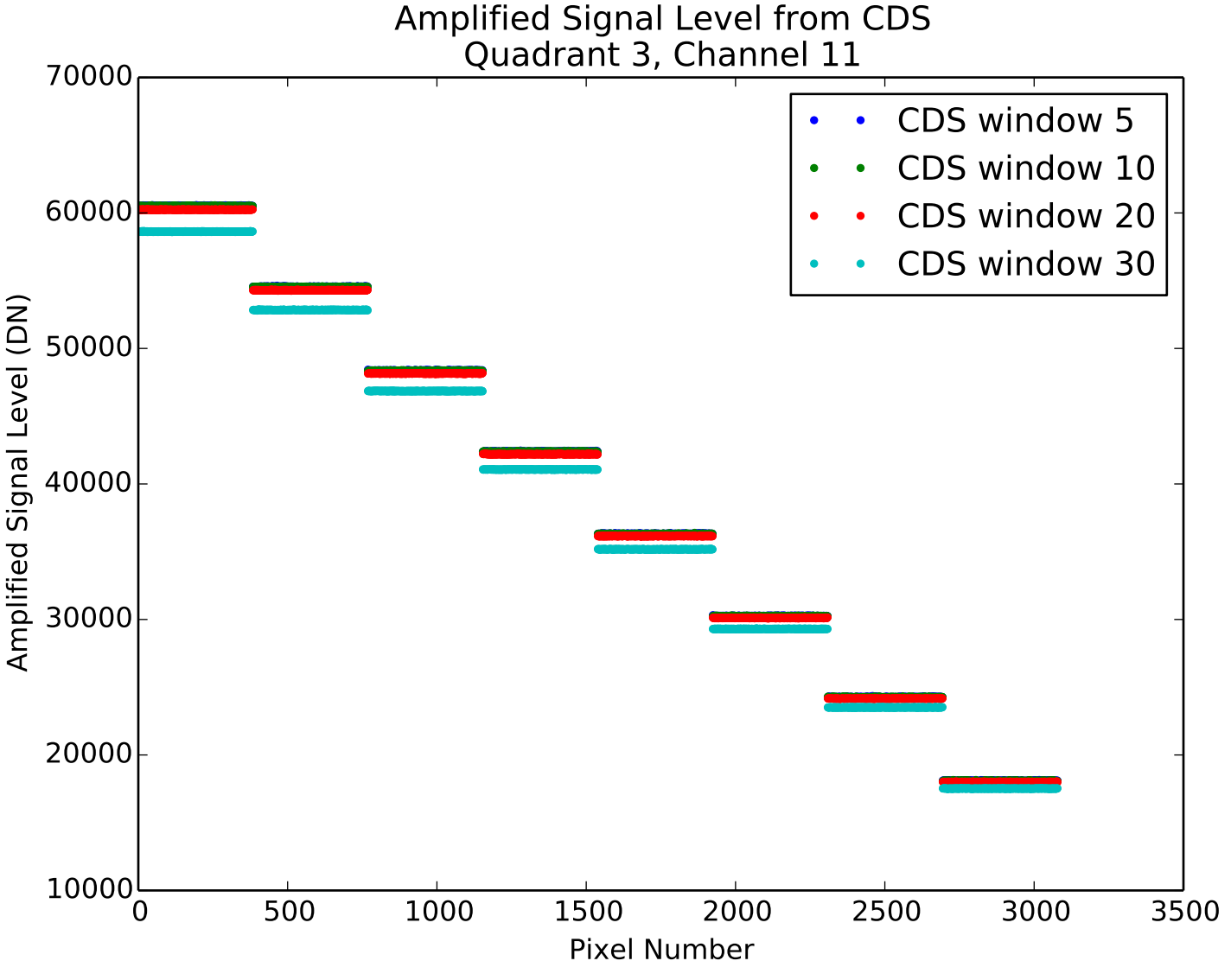

Amplified Signal Level from CDS
Quadrant 3, Channel 10
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

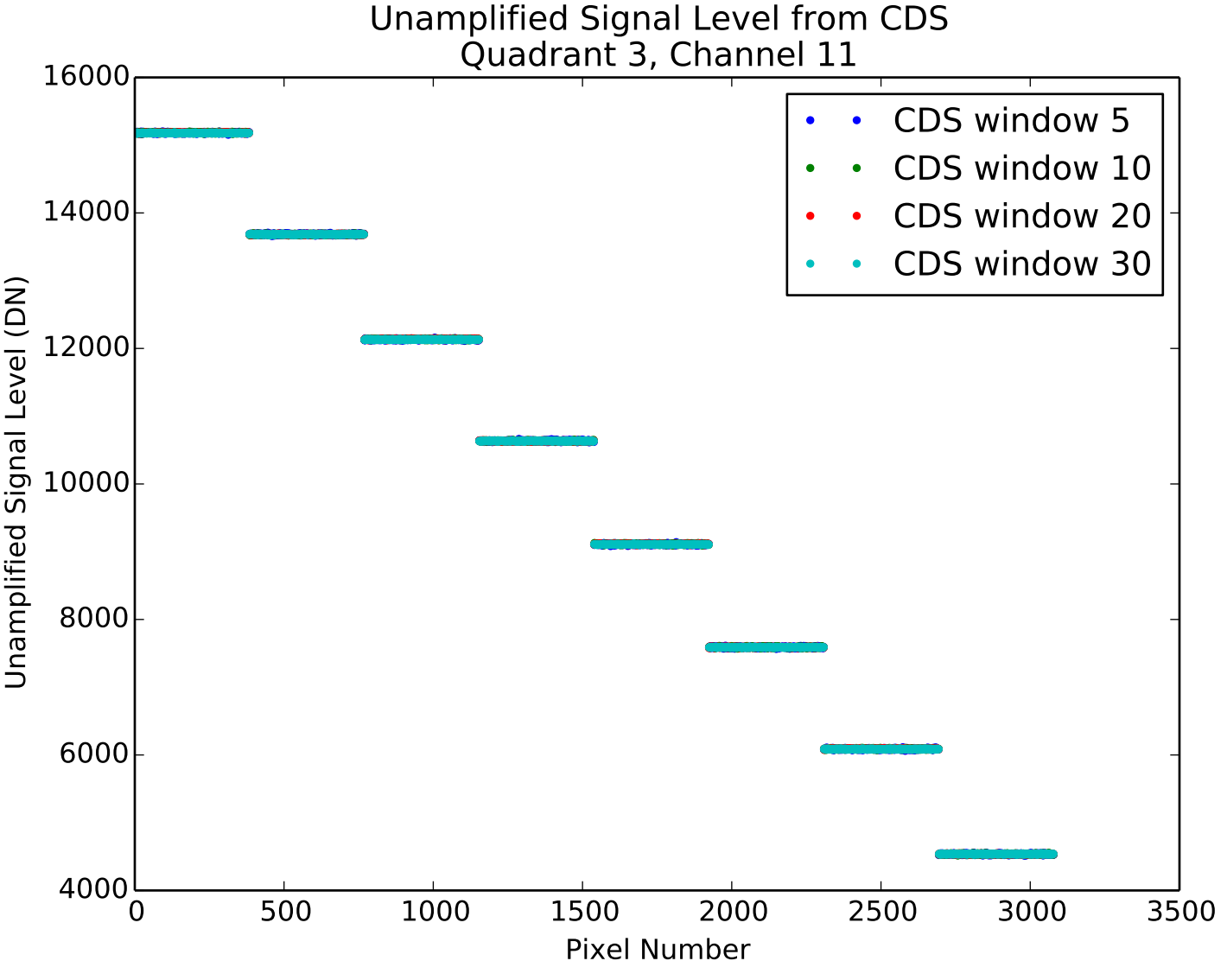

Unamplified Signal Level from CDS
Quadrant 3, Channel 10
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

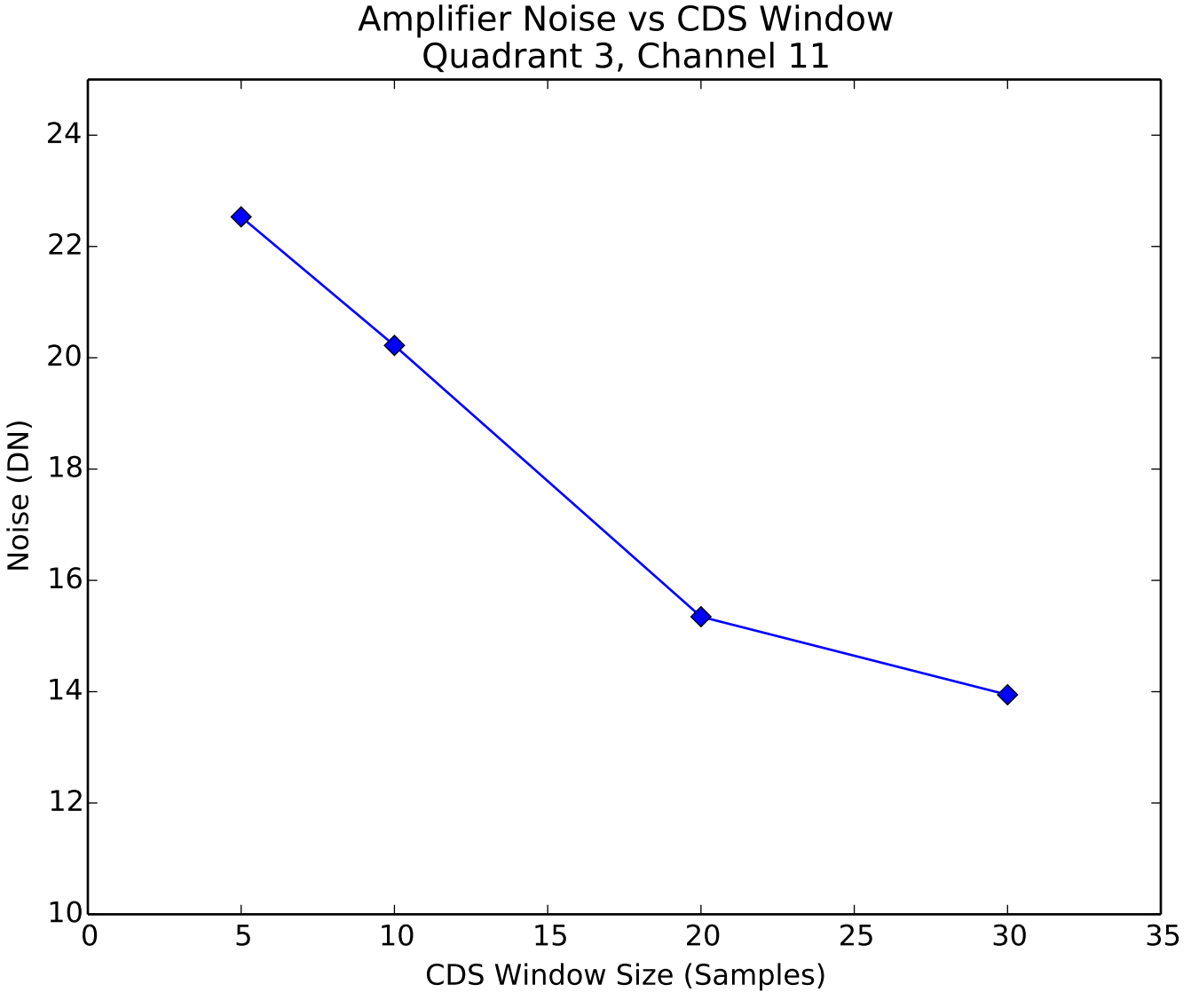

Amplifier Noise vs CDS Window
Quadrant 3, Channel 10
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

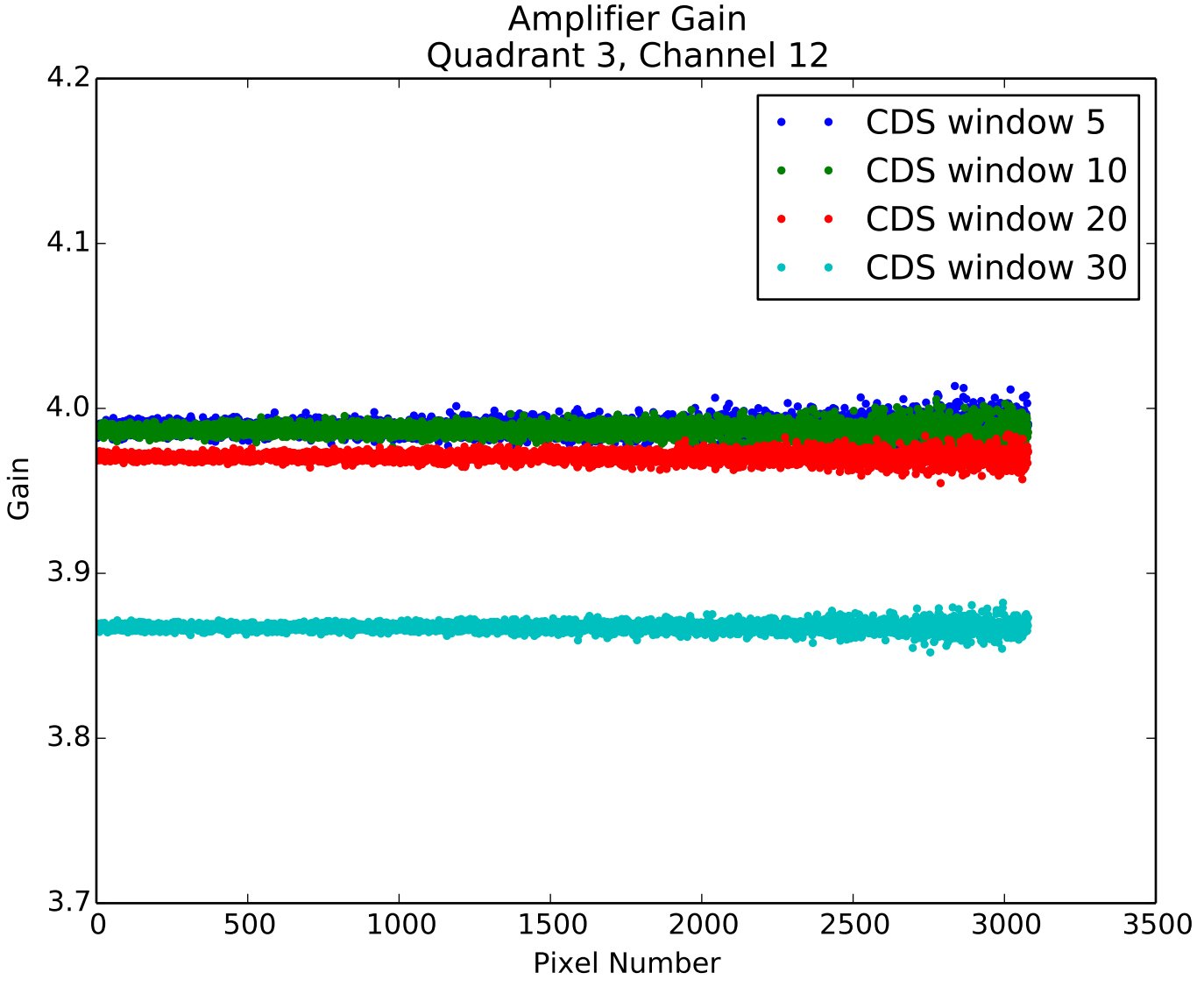

Amplifier Gain
Quadrant 3, Channel 11
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

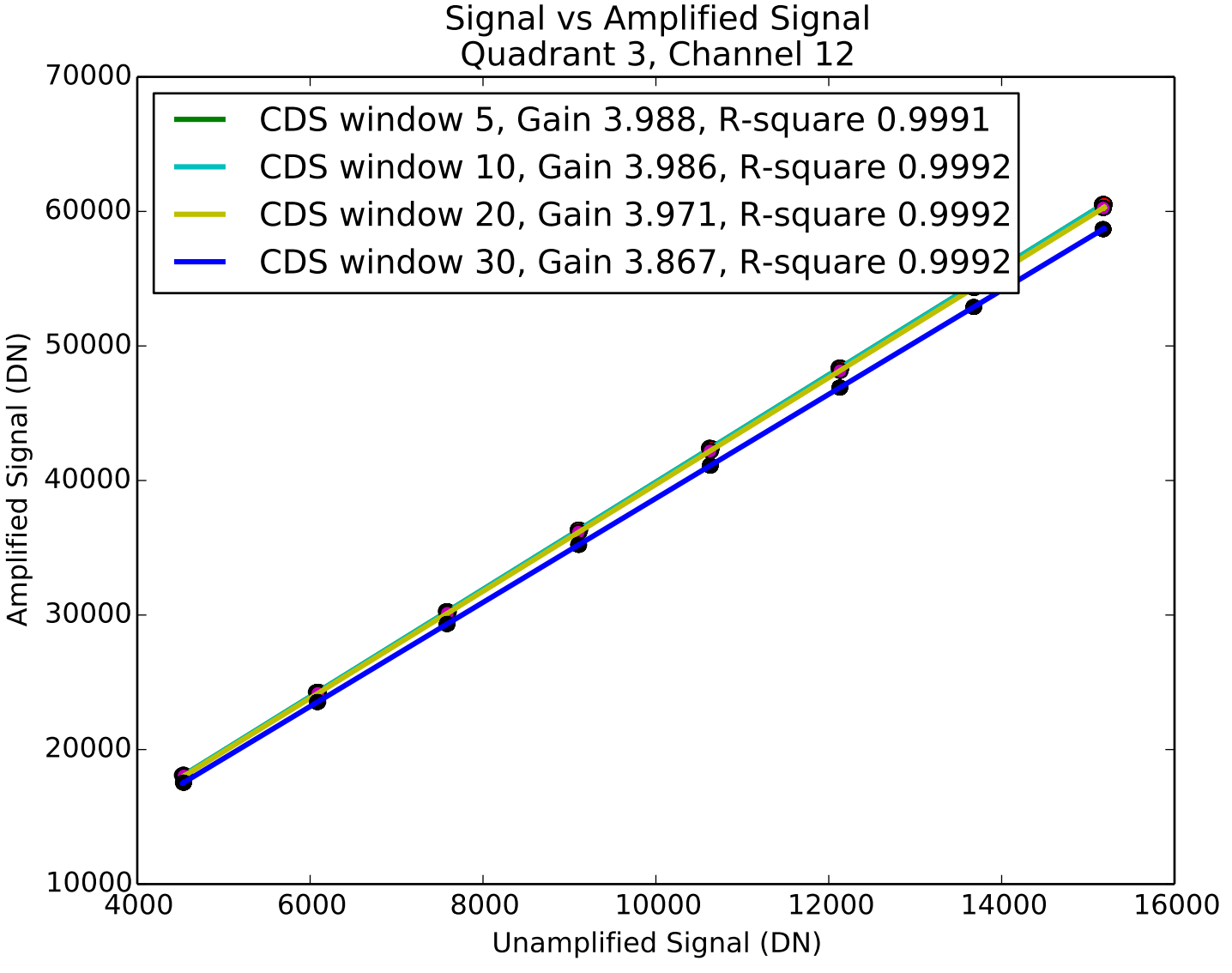

Signal vs Amplified Signal
Quadrant 3, Channel 11
CDS window 5, Gain 3.986, R-square 0.9991
CDS window 10, Gain 3.985, R-square 0.9992
CDS window 20, Gain 3.968, R-square 0.9992
CDS window 30, Gain 3.862, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

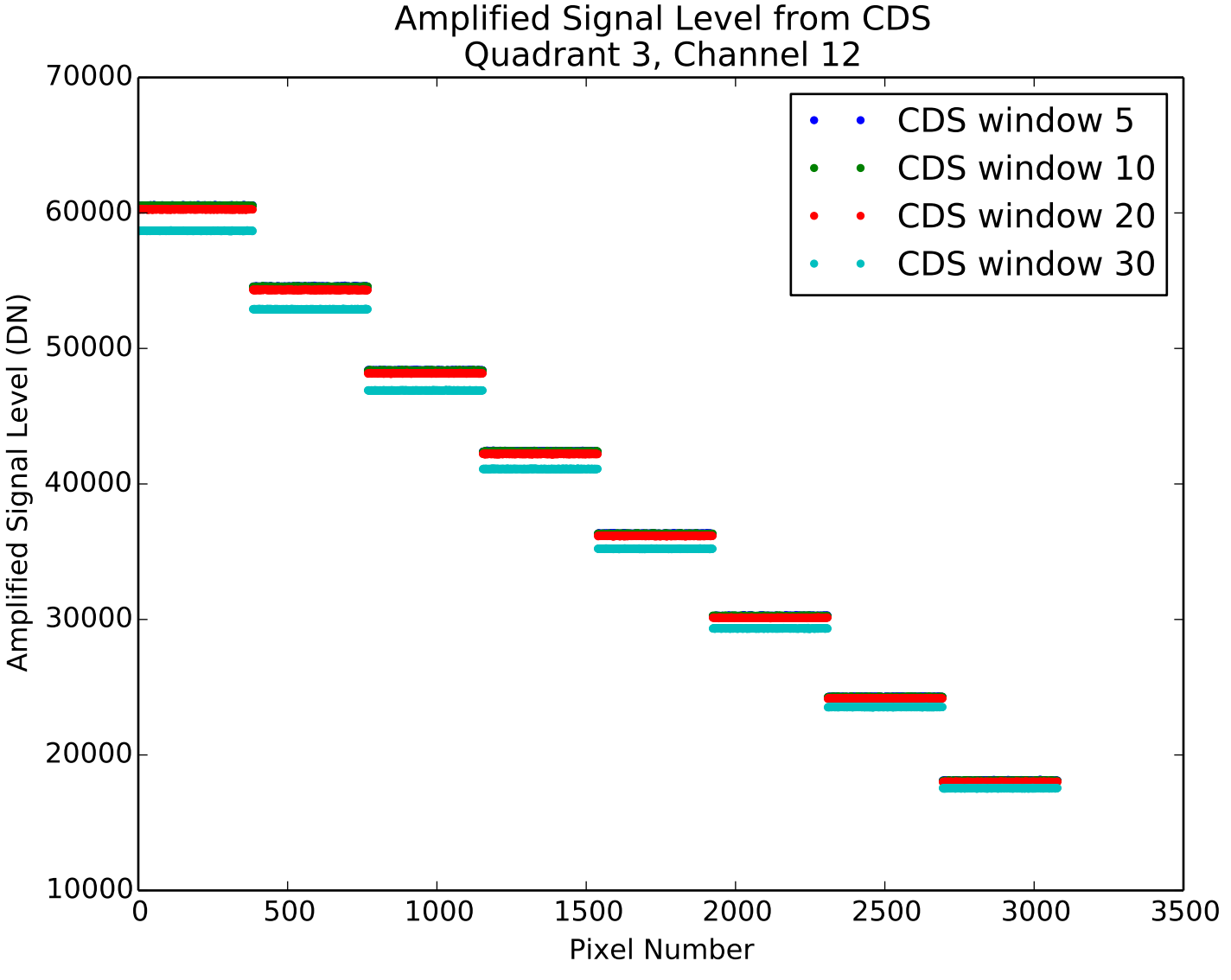

Amplified Signal Level from CDS
Quadrant 3, Channel 11
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

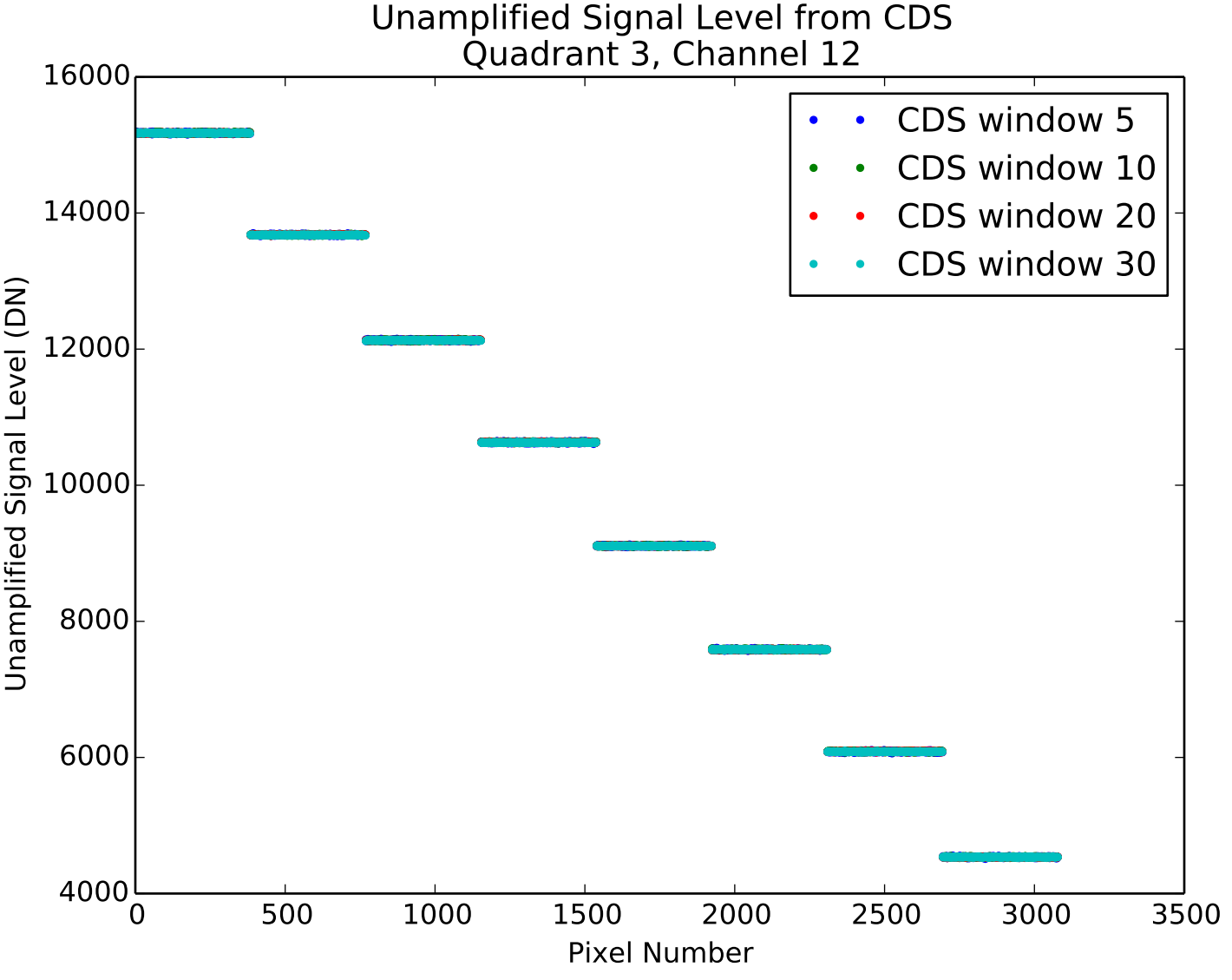

Unamplified Signal Level from CDS
Quadrant 3, Channel 11
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

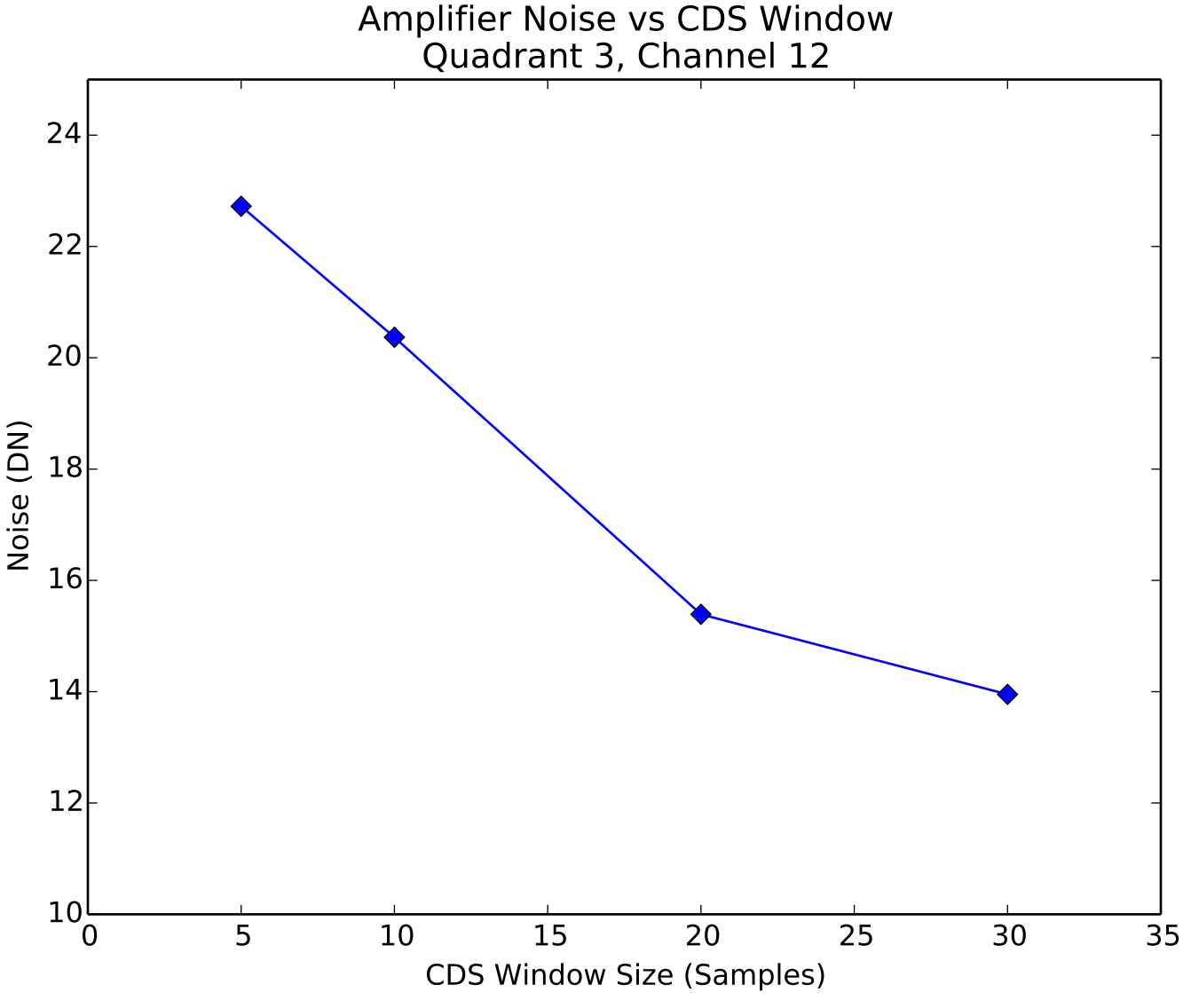

Amplifier Noise vs CDS Window
Quadrant 3, Channel 11
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

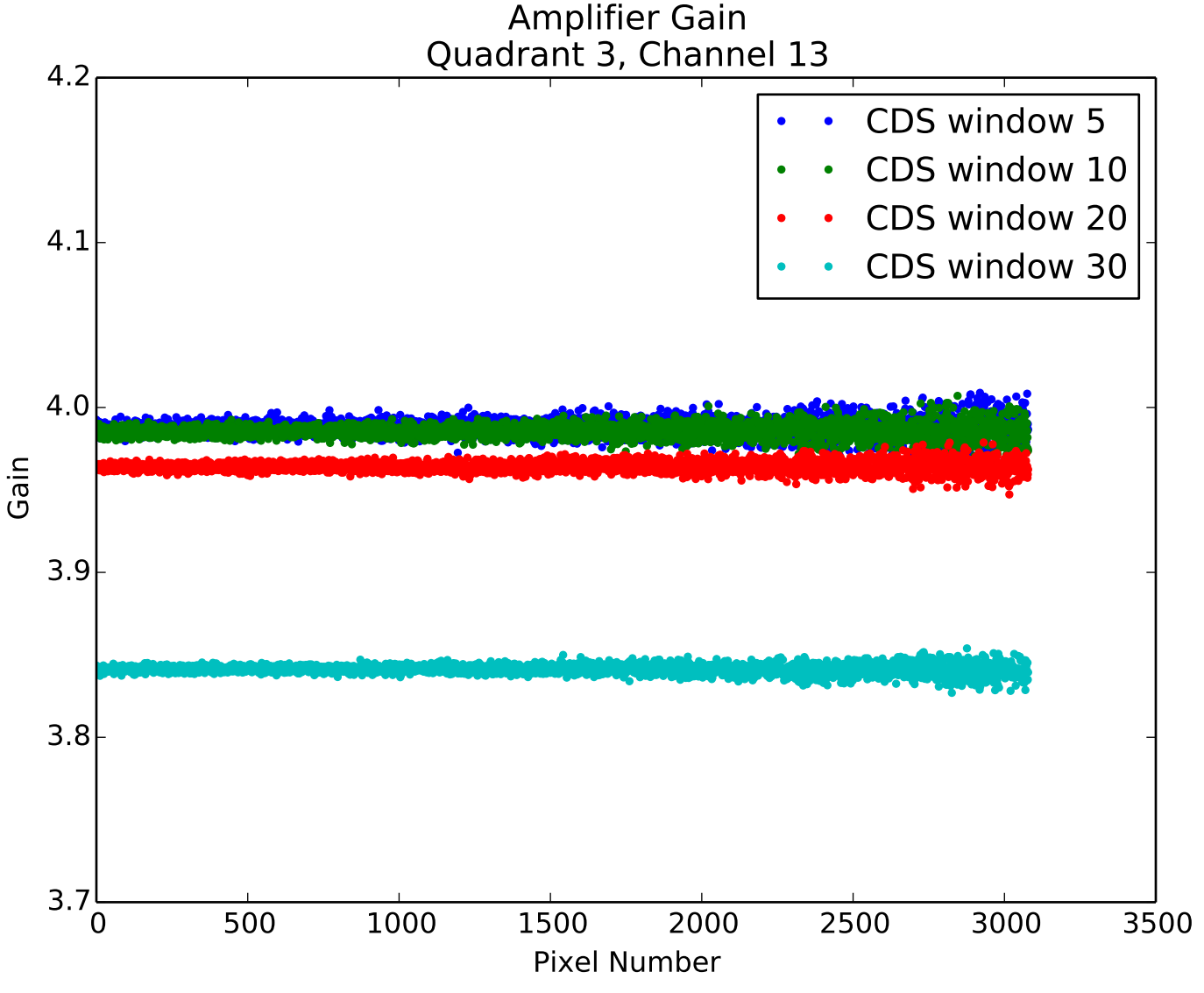

Amplifier Gain
Quadrant 3, Channel 12
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

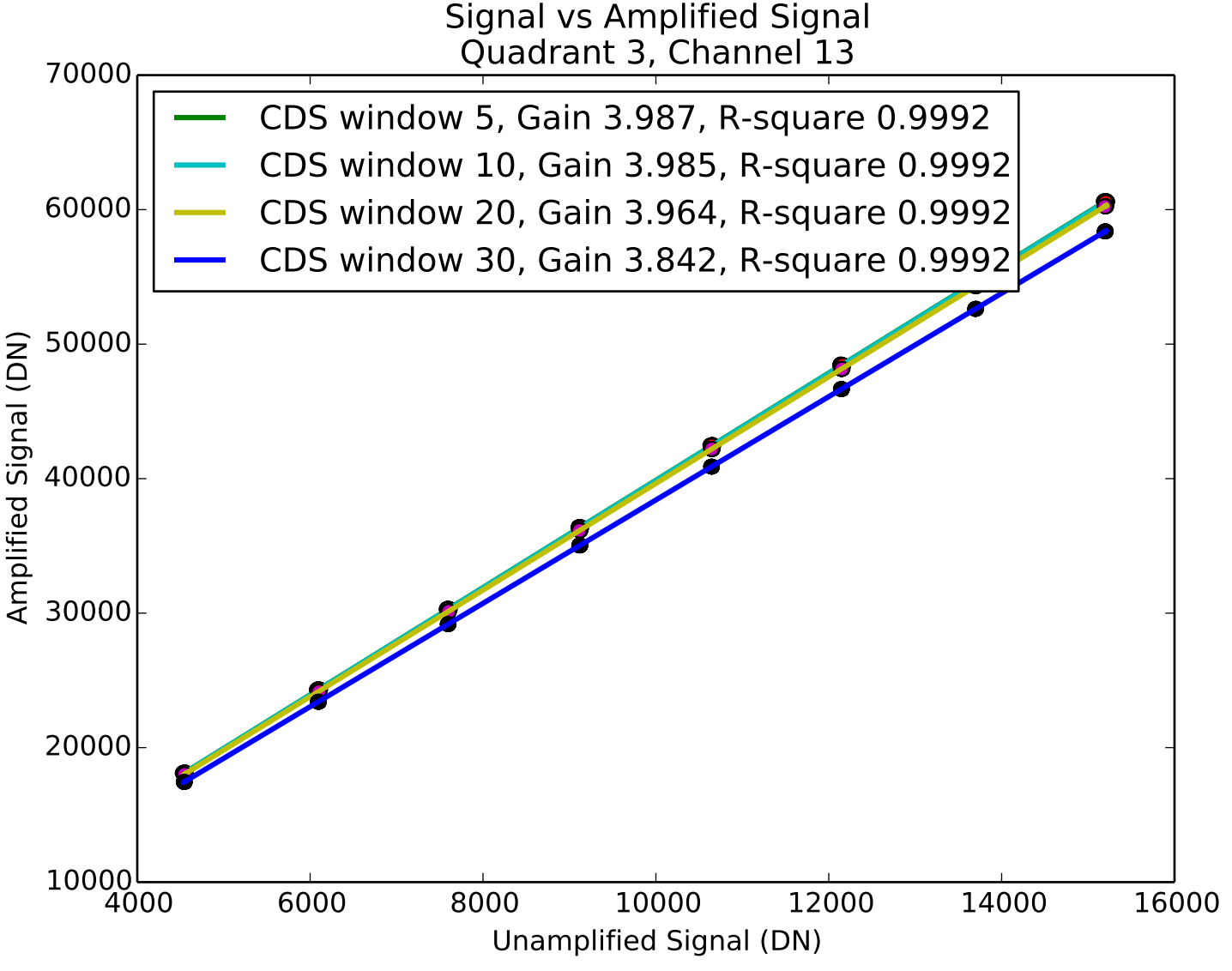

Signal vs Amplified Signal
Quadrant 3, Channel 12
CDS window 5, Gain 3.988, R-square 0.9991
CDS window 10, Gain 3.986, R-square 0.9992
CDS window 20, Gain 3.971, R-square 0.9992
CDS window 30, Gain 3.867, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

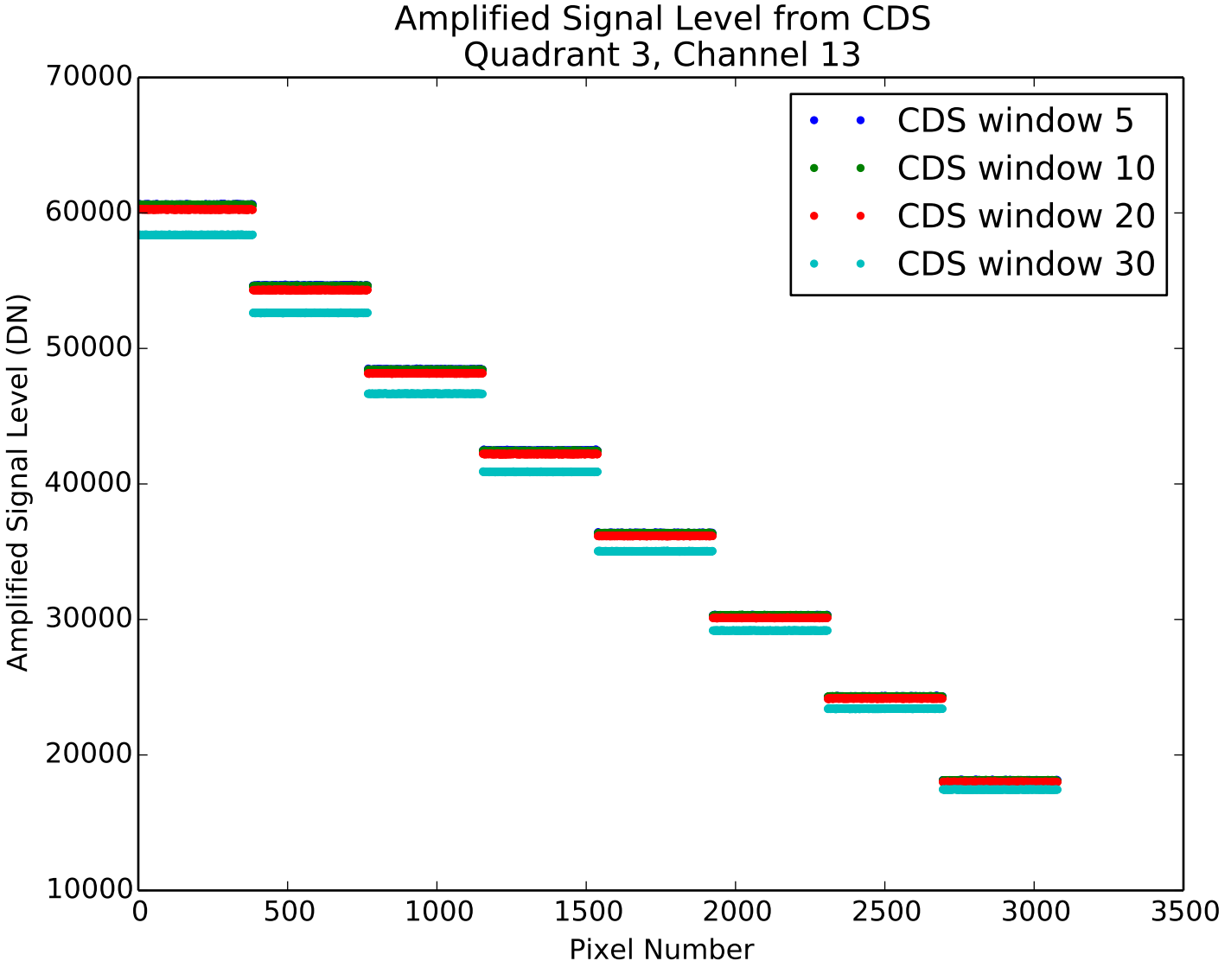

Amplified Signal Level from CDS
Quadrant 3, Channel 12
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

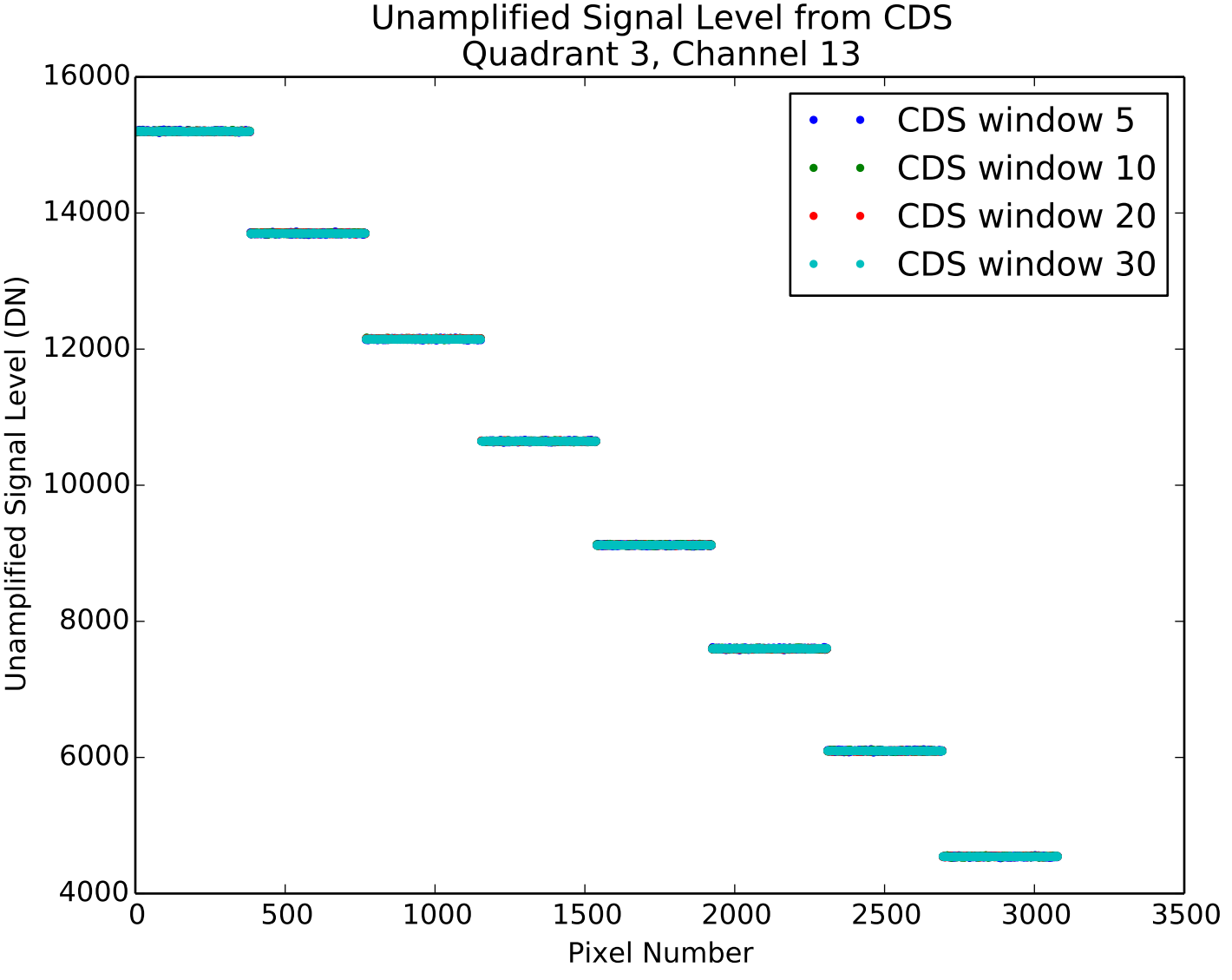

Unamplified Signal Level from CDS
Quadrant 3, Channel 12
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

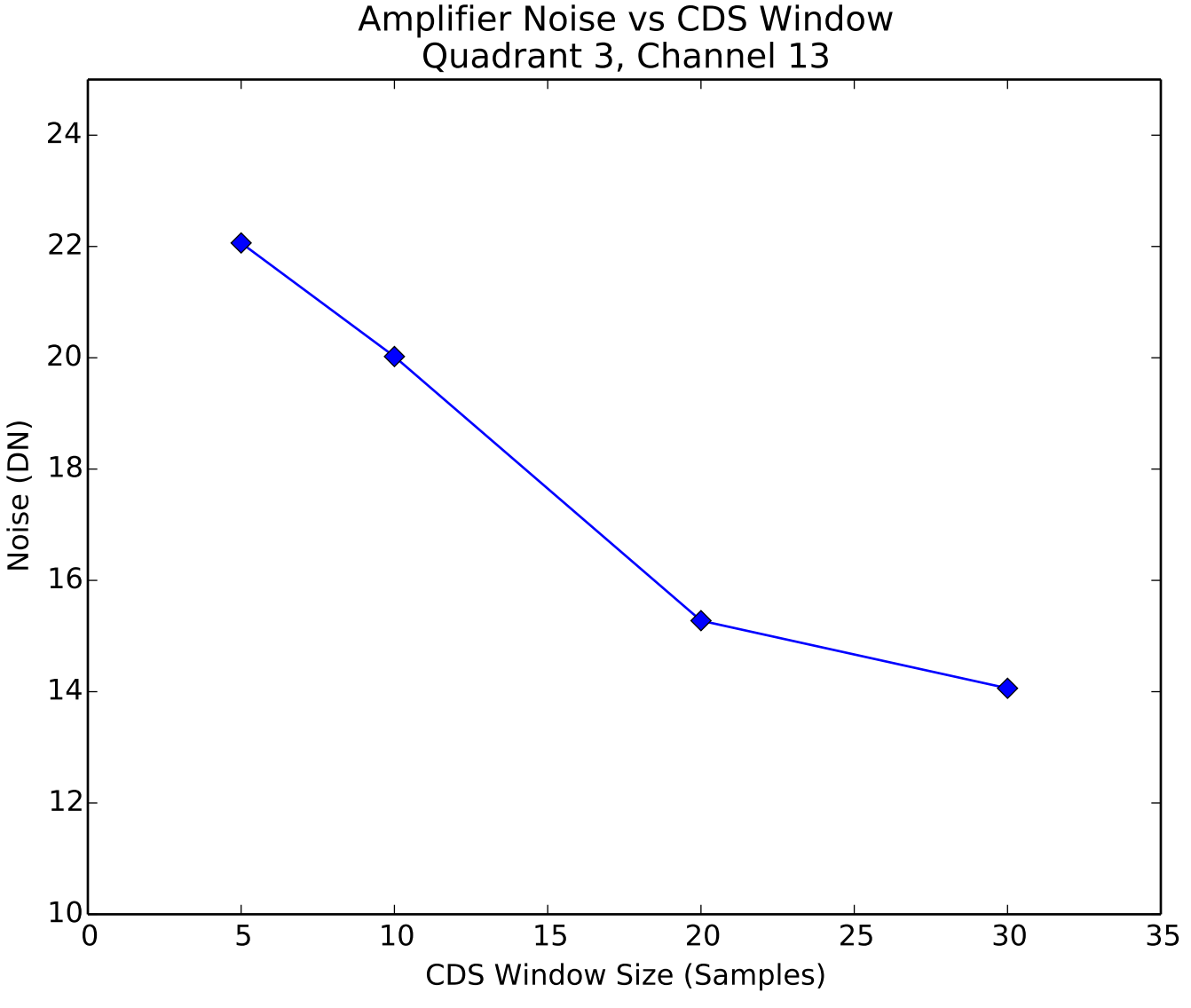

Amplifier Noise vs CDS Window
Quadrant 3, Channel 12
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

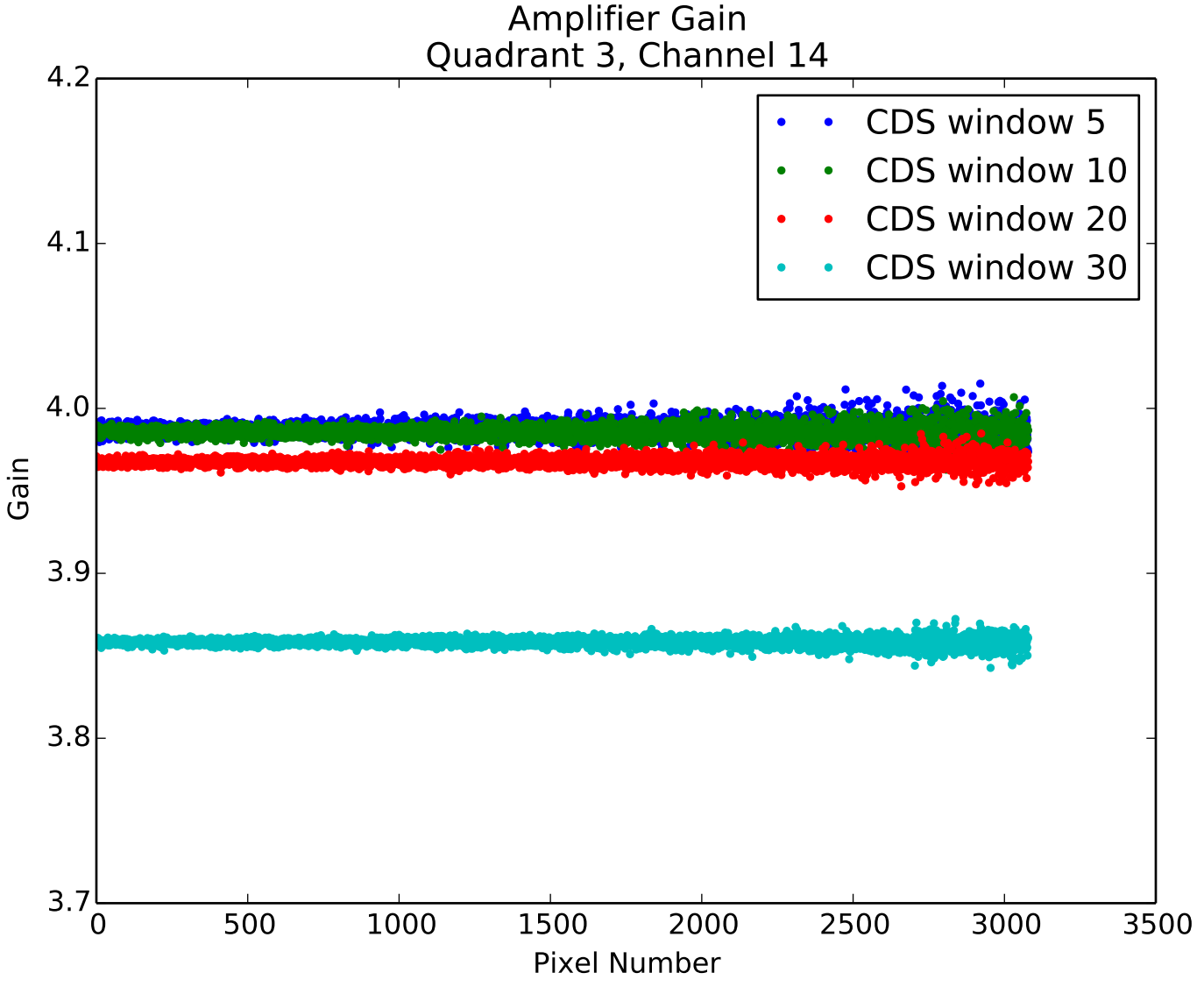

Amplifier Gain
Quadrant 3, Channel 13
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

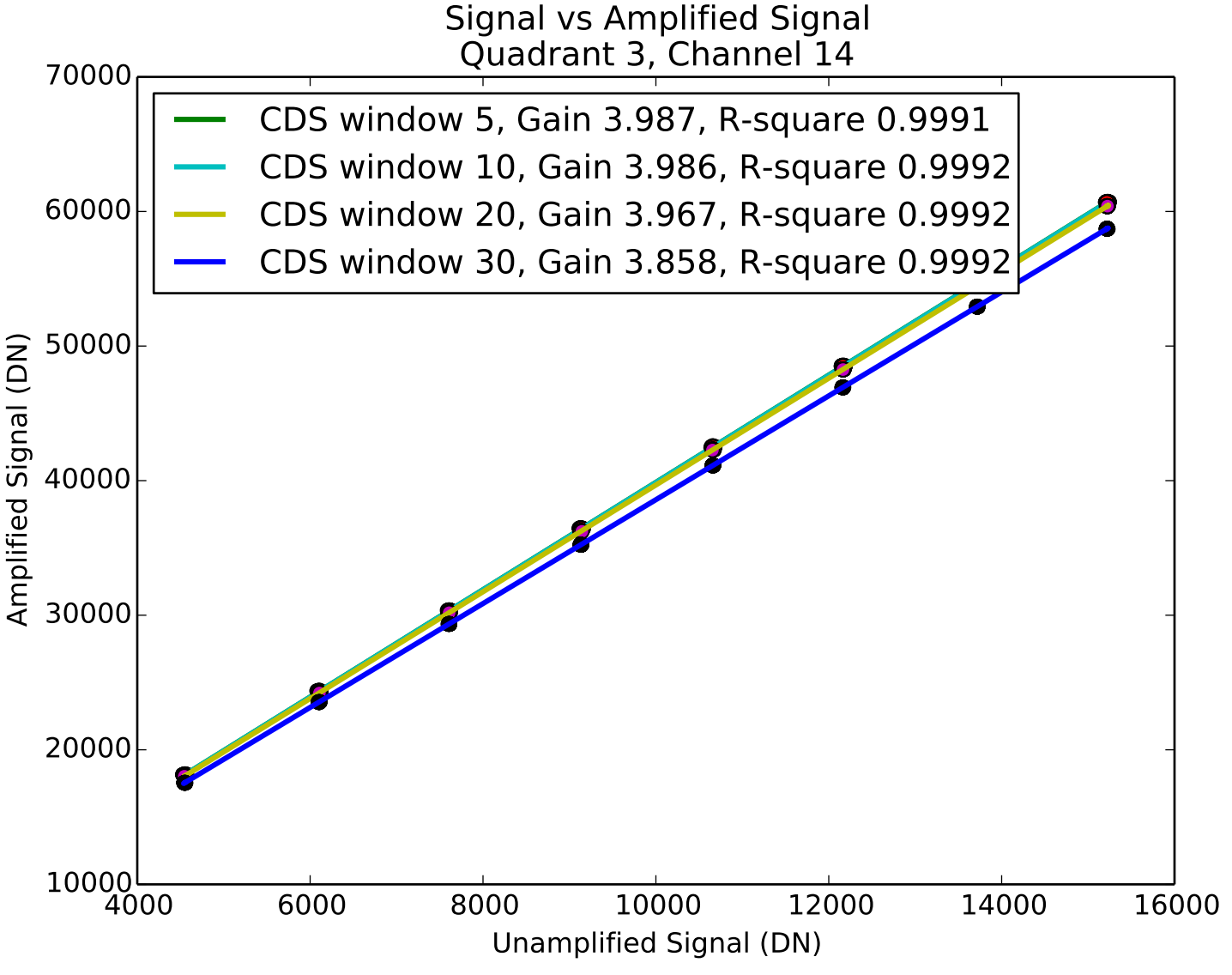

Signal vs Amplified Signal
Quadrant 3, Channel 13
CDS window 5, Gain 3.987, R-square 0.9992
CDS window 10, Gain 3.985, R-square 0.9992
CDS window 20, Gain 3.964, R-square 0.9992
CDS window 30, Gain 3.842, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

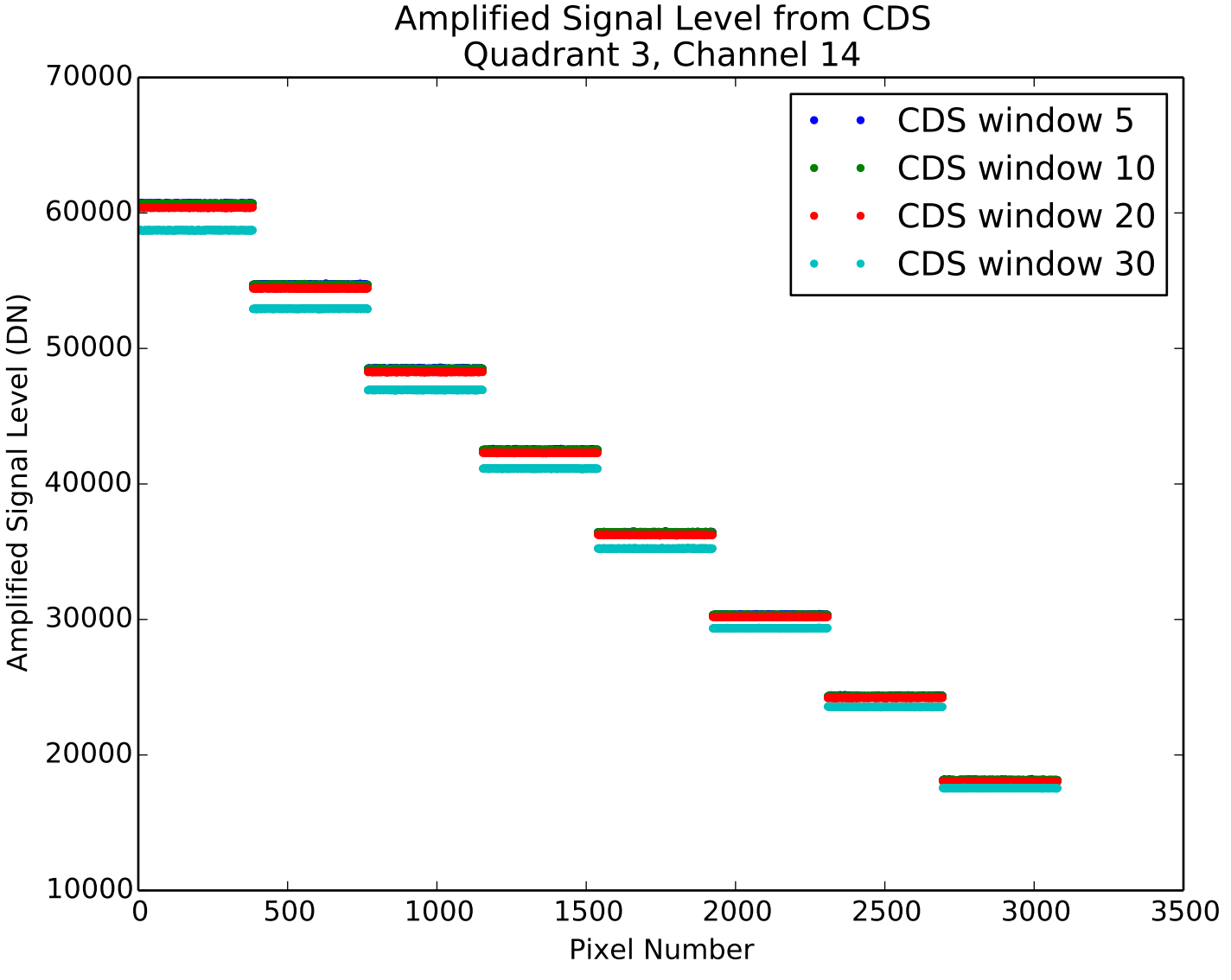

Amplified Signal Level from CDS
Quadrant 3, Channel 13
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

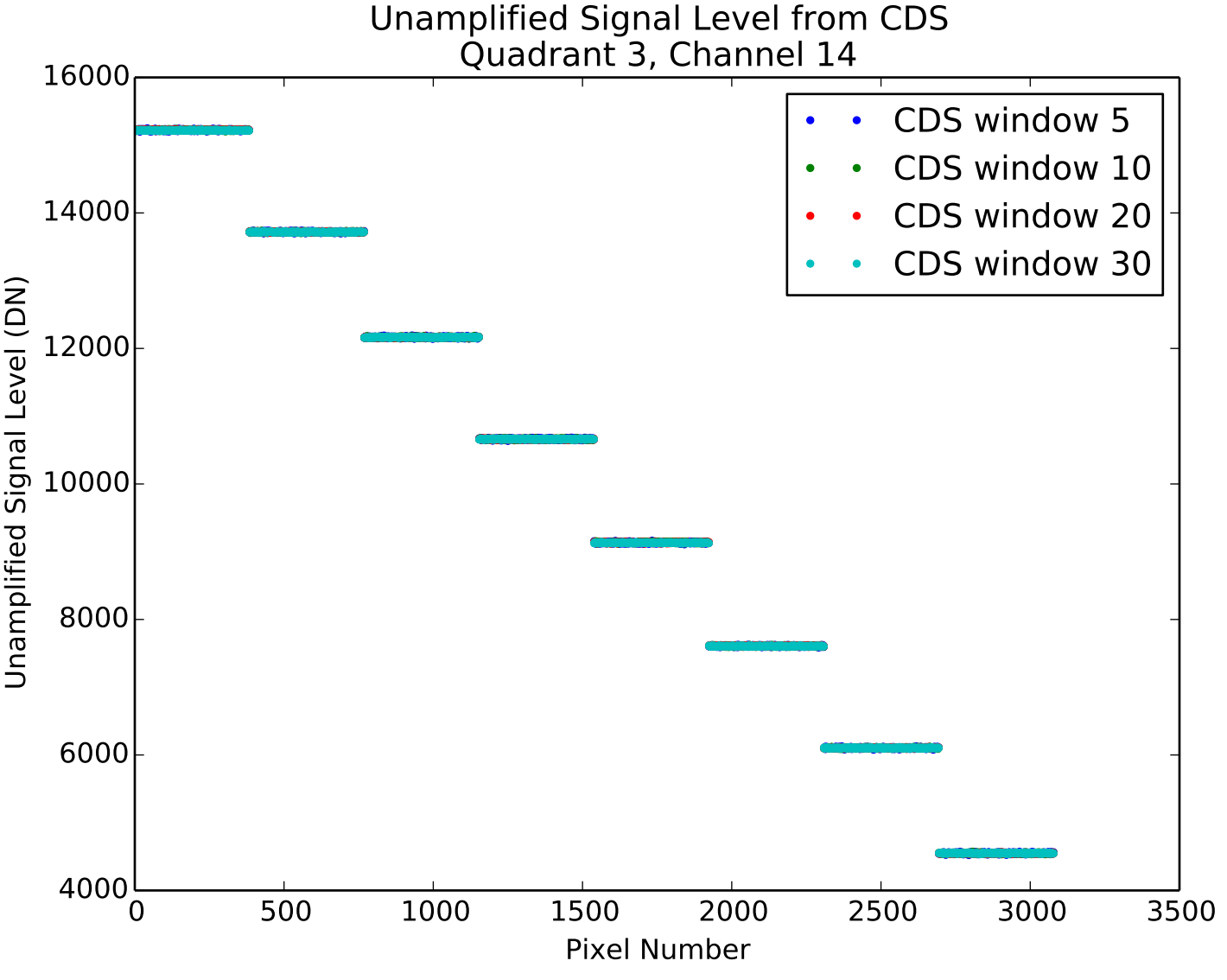

Unamplified Signal Level from CDS
Quadrant 3, Channel 13
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

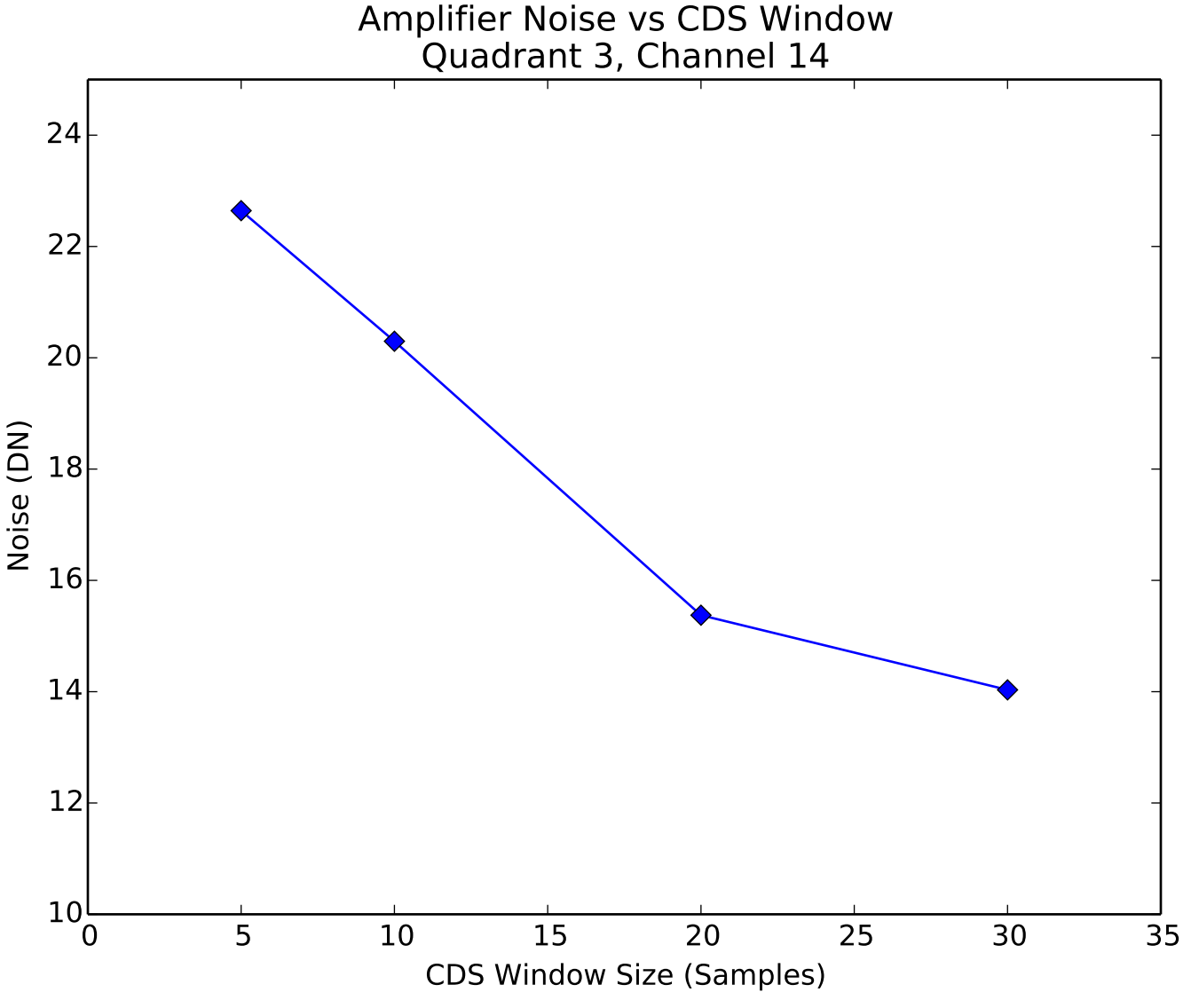

Amplifier Noise vs CDS Window
Quadrant 3, Channel 13
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

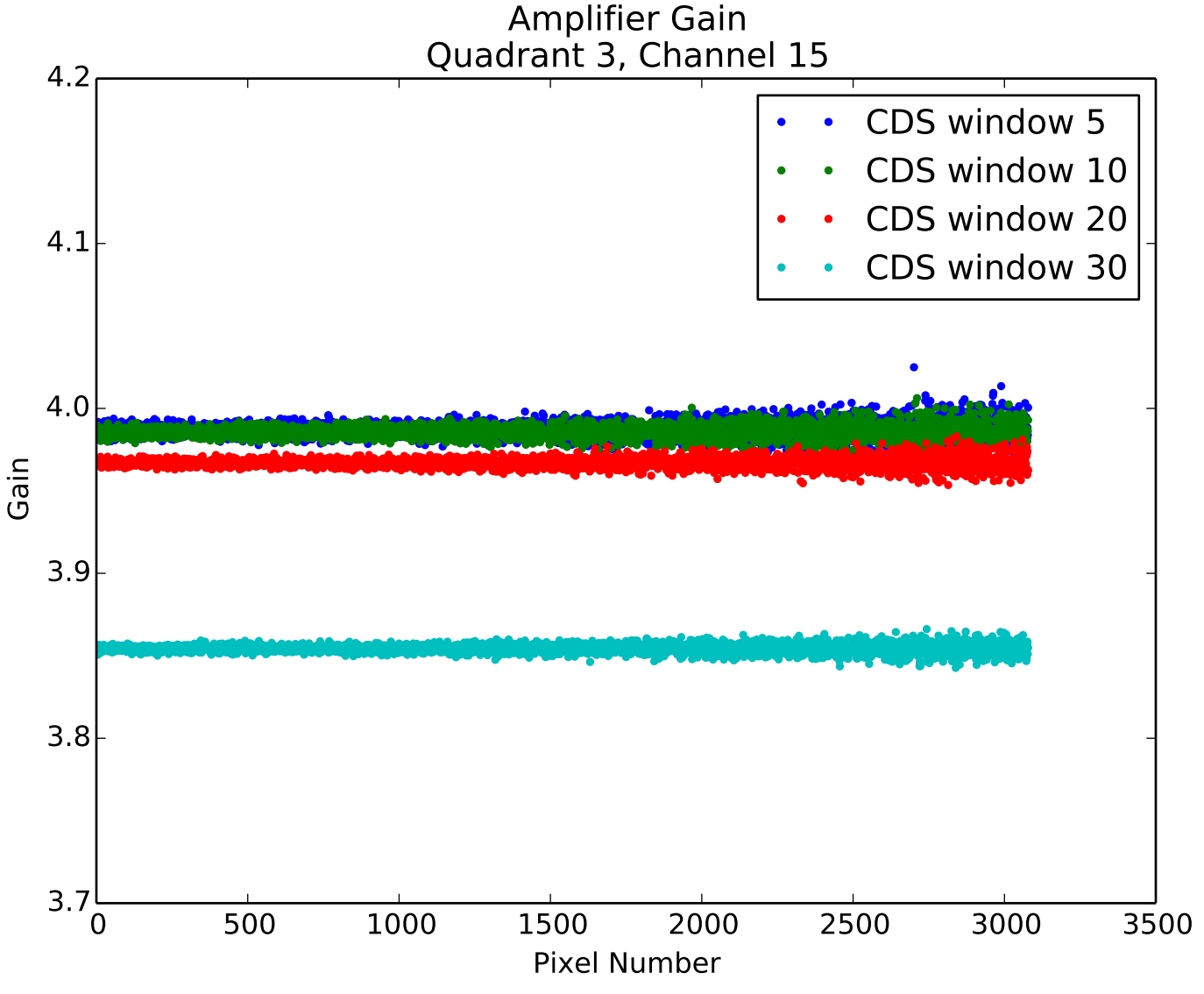

Amplifier Gain
Quadrant 3, Channel 14
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

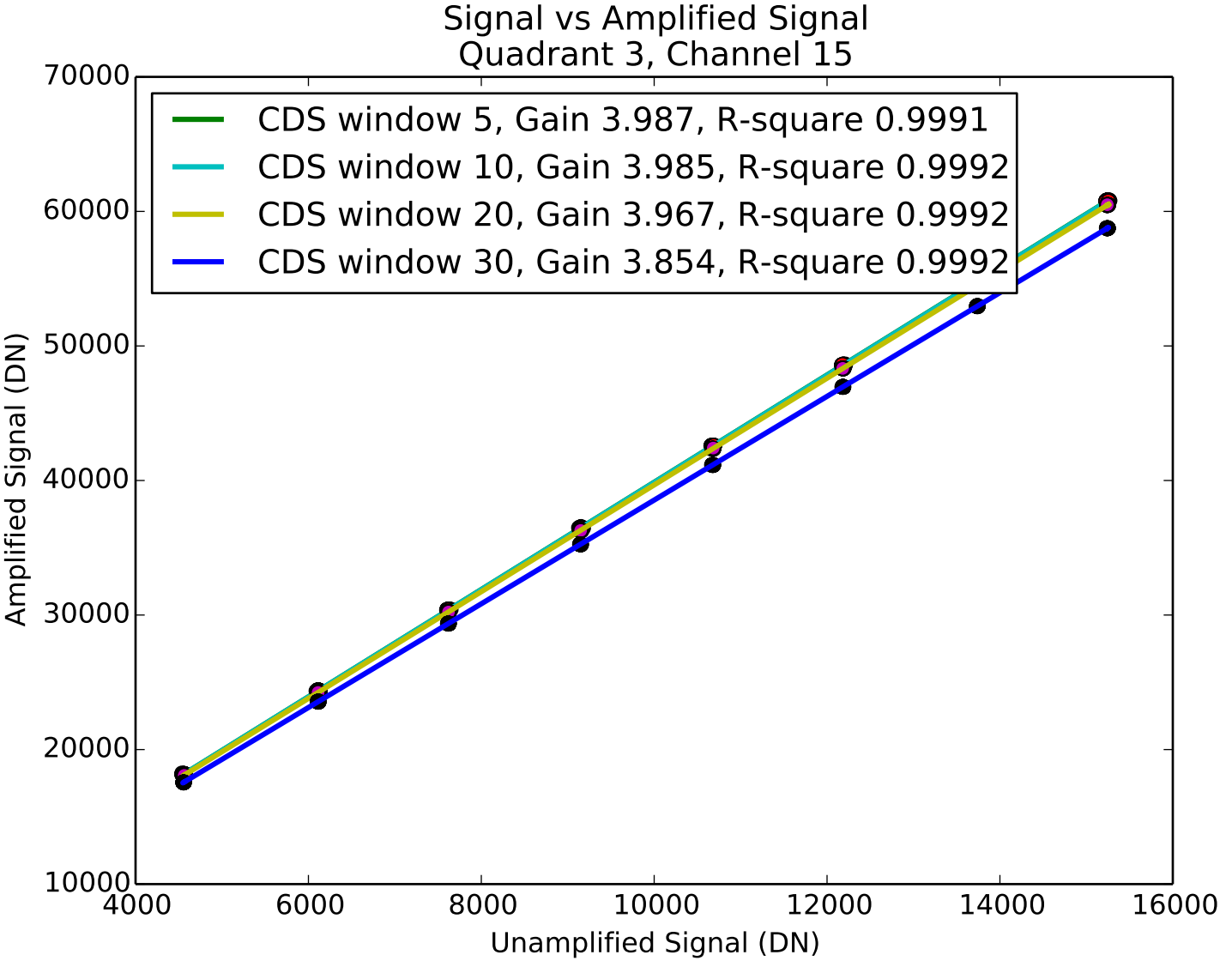

Signal vs Amplified Signal
Quadrant 3, Channel 14
CDS window 5, Gain 3.987, R-square 0.9991
CDS window 10, Gain 3.986, R-square 0.9992
CDS window 20, Gain 3.967, R-square 0.9992
CDS window 30, Gain 3.858, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

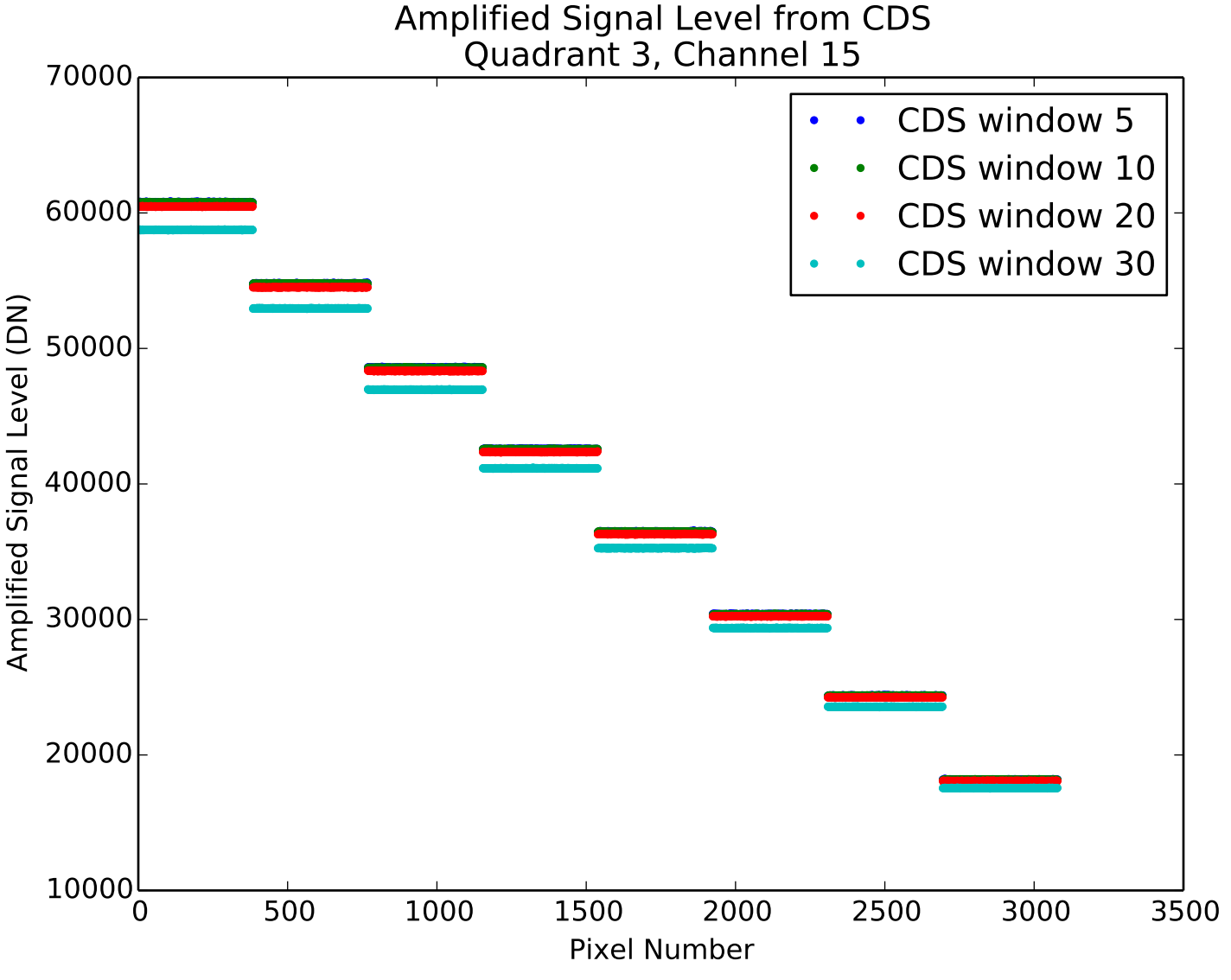

Amplified Signal Level from CDS
Quadrant 3, Channel 14
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

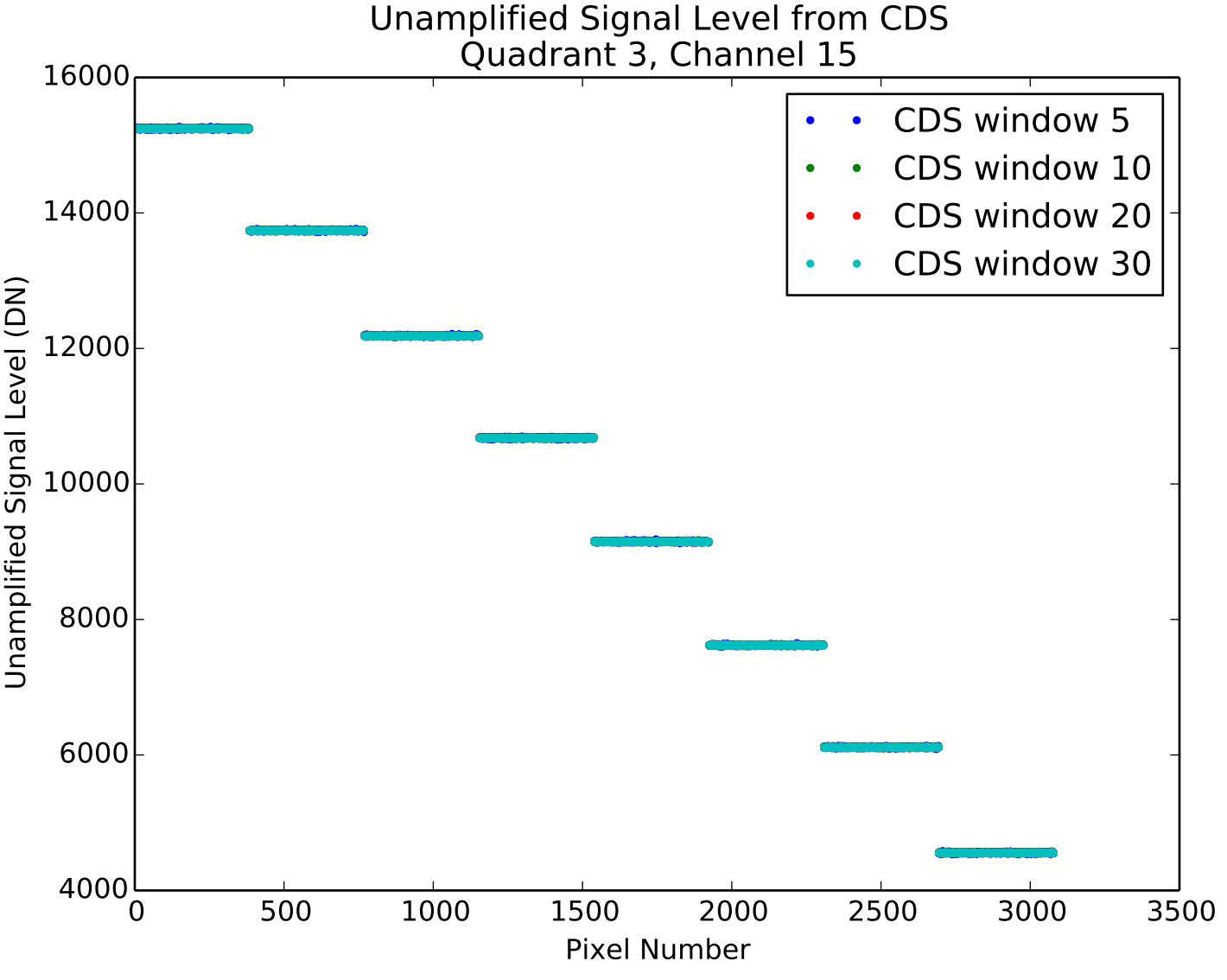

Unamplified Signal Level from CDS
Quadrant 3, Channel 14
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

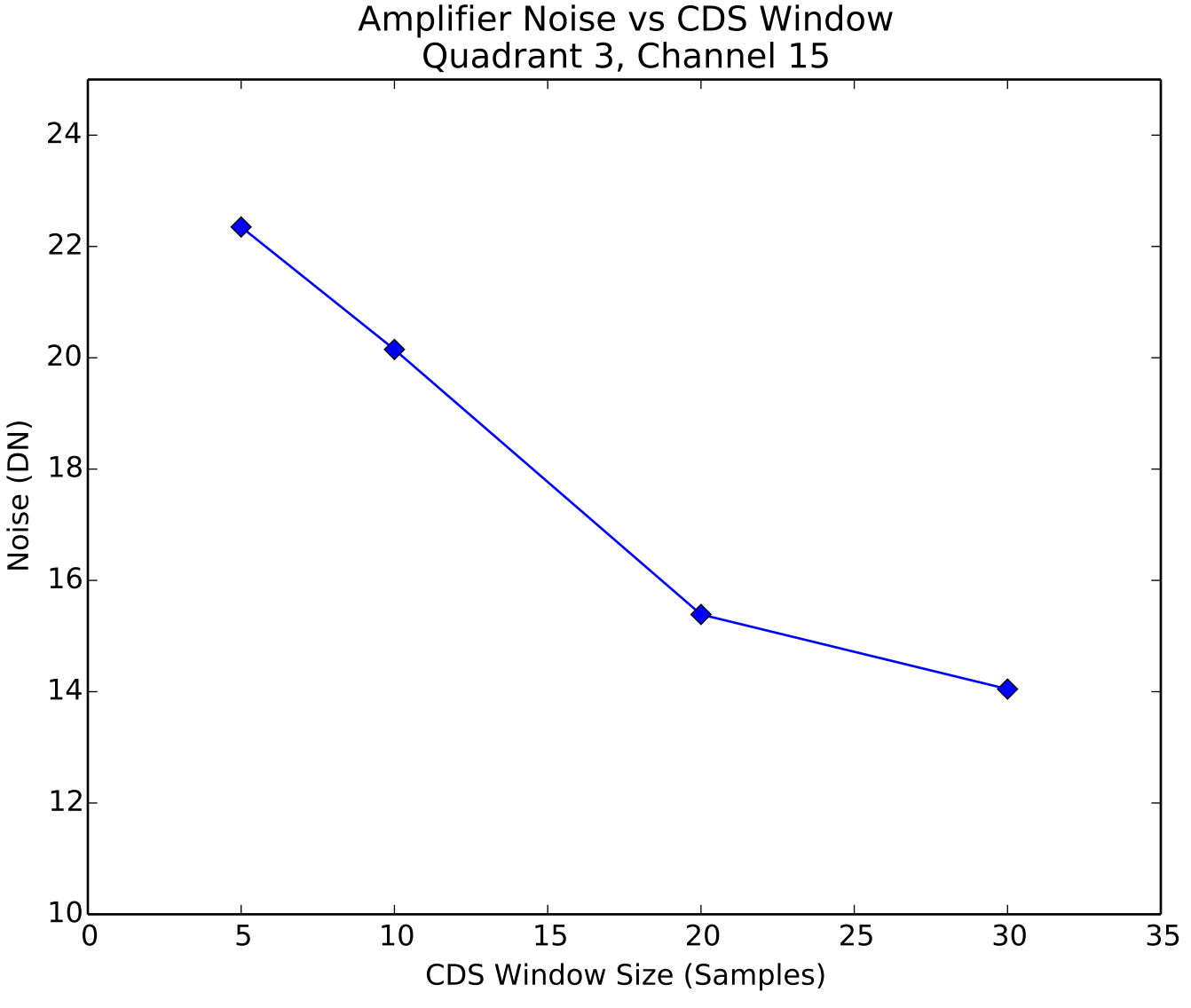

Amplifier Noise vs CDS Window
Quadrant 3, Channel 14
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35

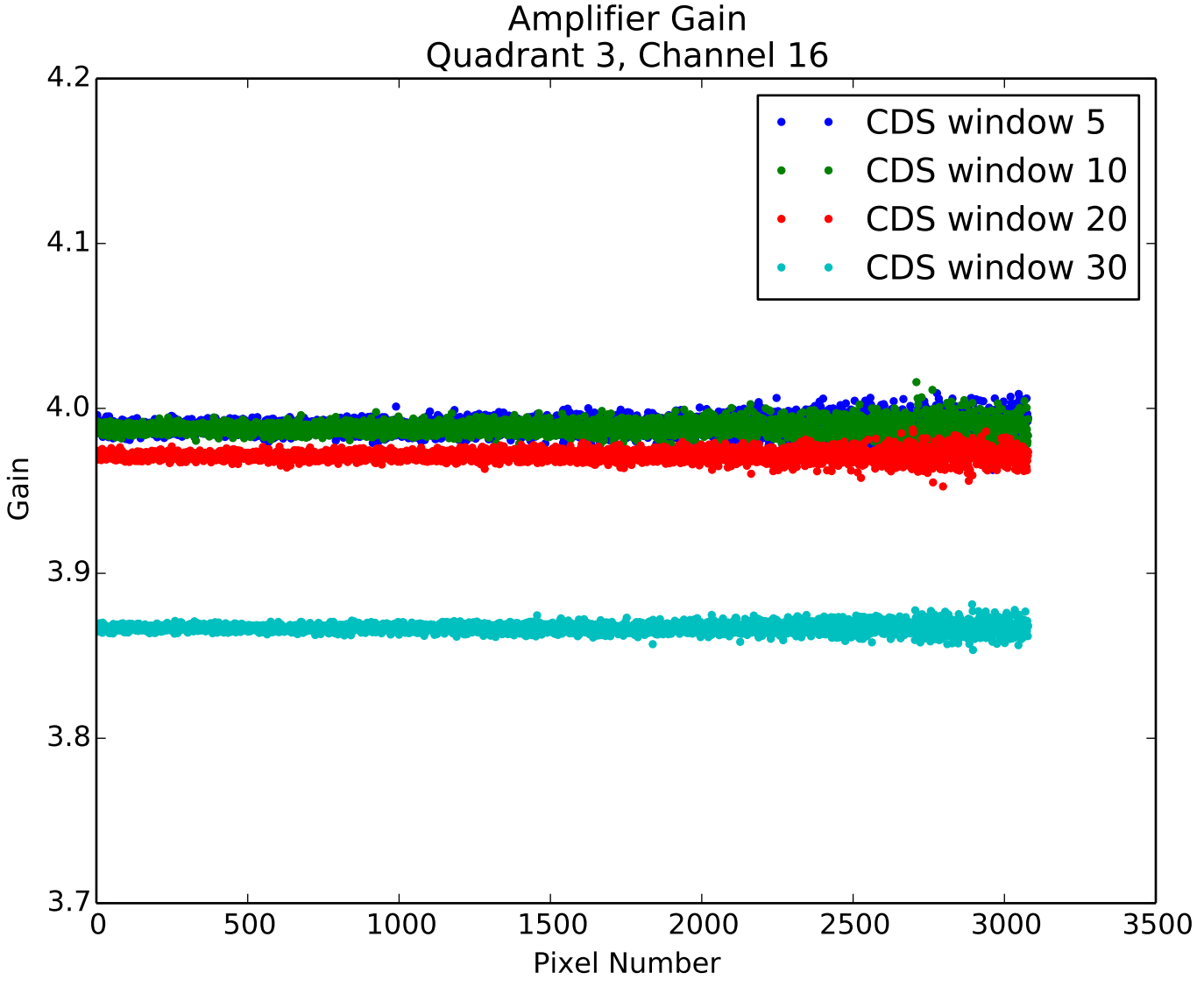

Amplifier Gain
Quadrant 3, Channel 15
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500

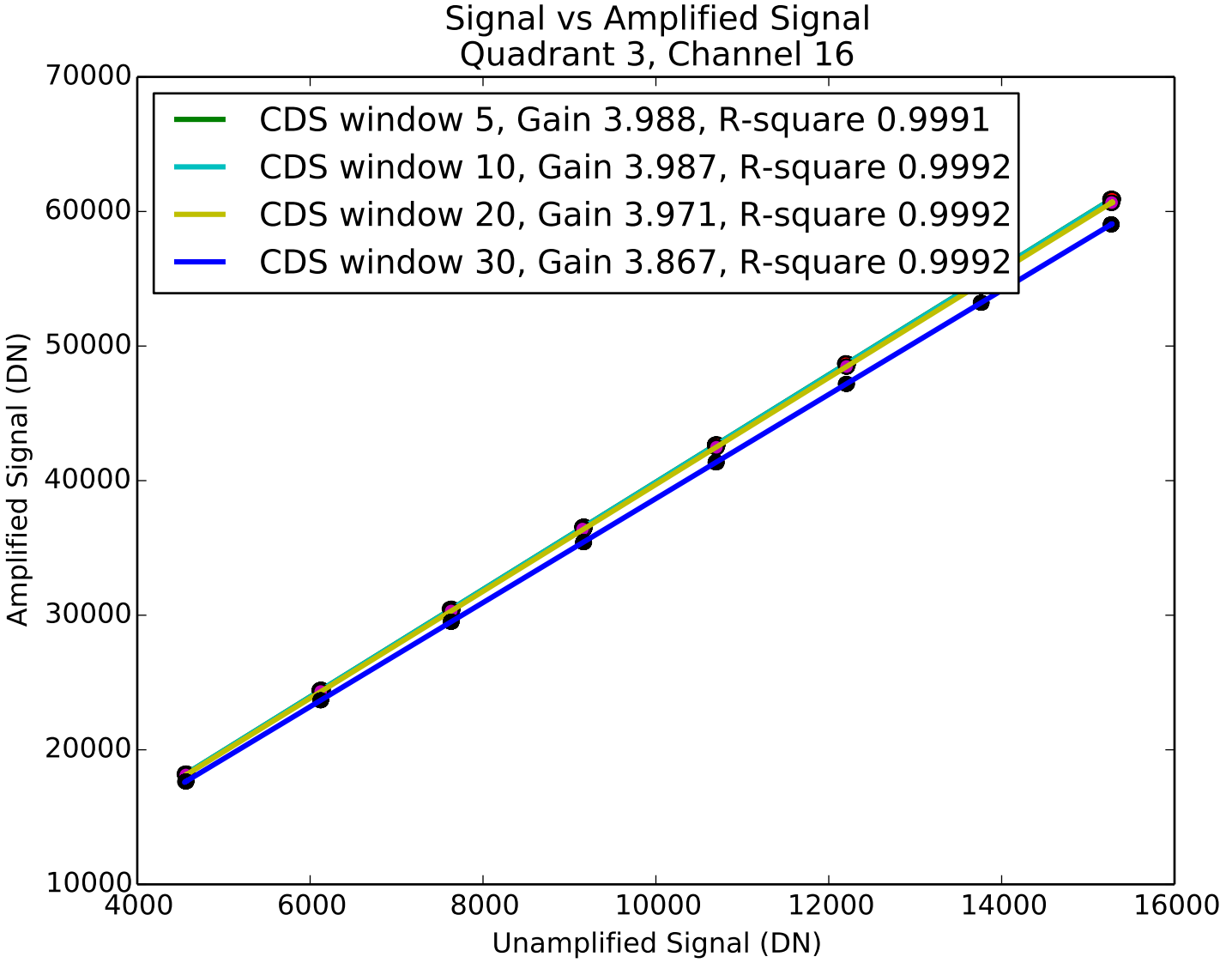

Signal vs Amplified Signal
Quadrant 3, Channel 15
CDS window 5, Gain 3.987, R-square 0.9991
CDS window 10, Gain 3.985, R-square 0.9992
CDS window 20, Gain 3.967, R-square 0.9992
CDS window 30, Gain 3.854, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000

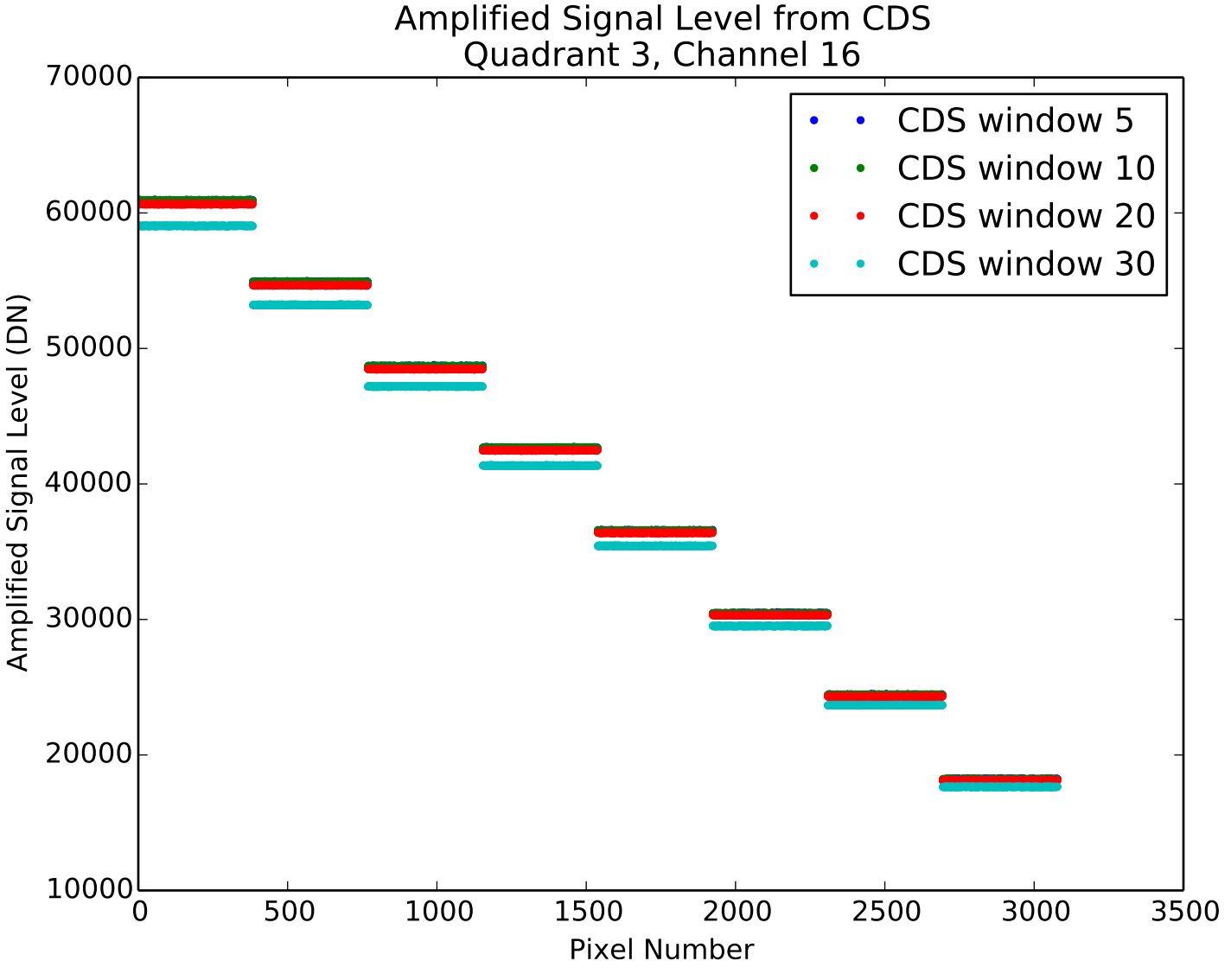

Amplified Signal Level from CDS
Quadrant 3, Channel 15
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500

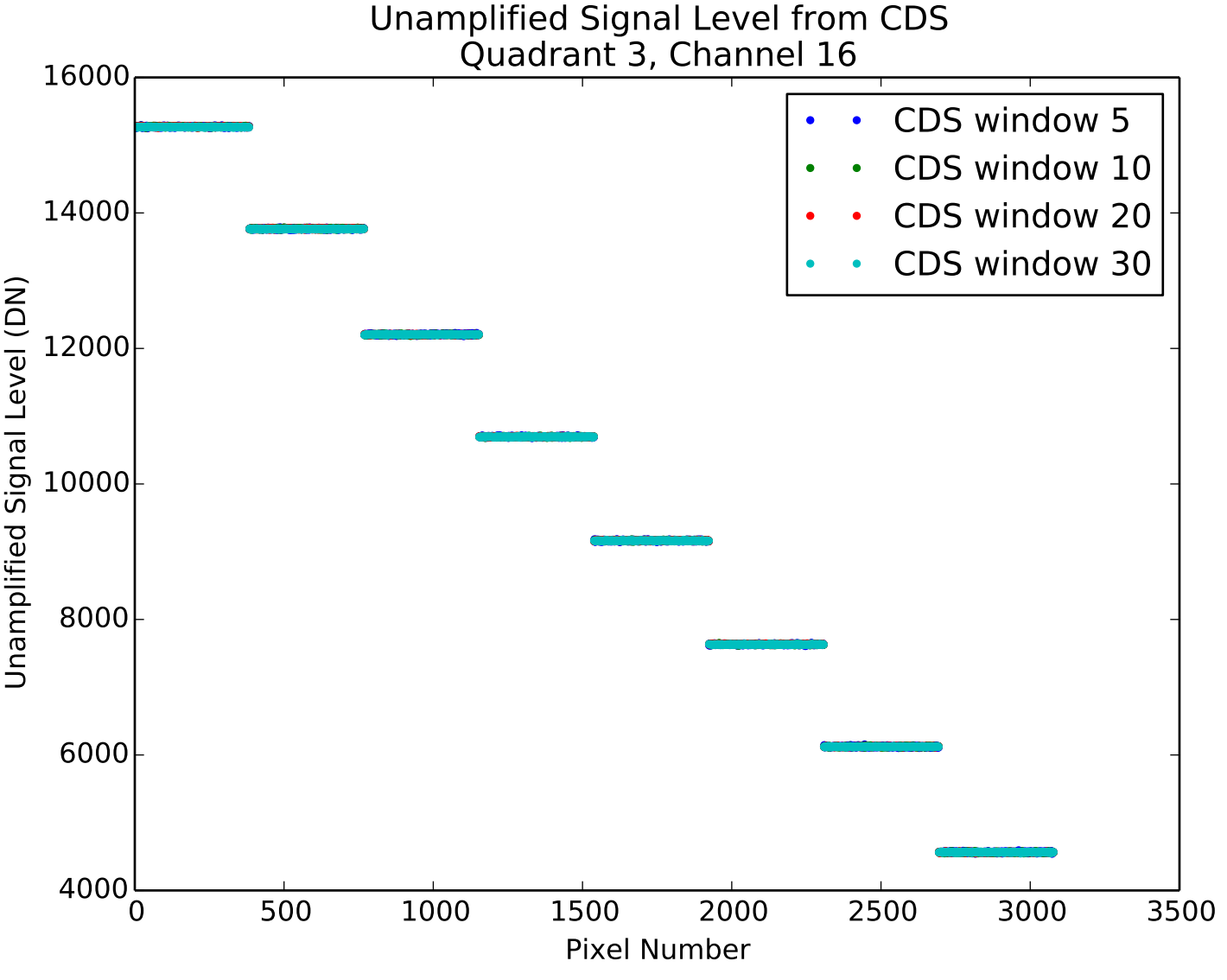

Unamplified Signal Level from CDS
Quadrant 3, Channel 15
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500

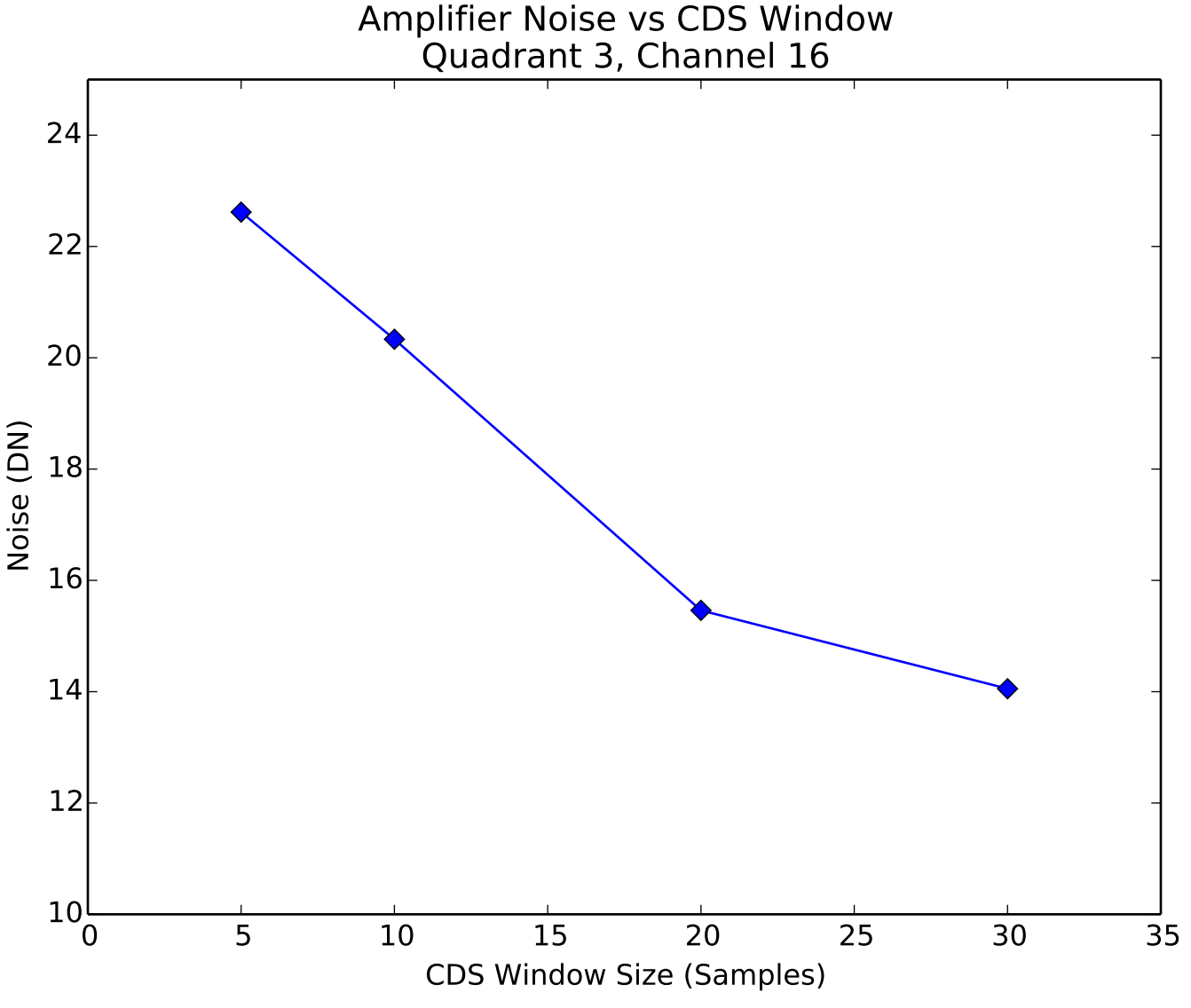

Amplifier Noise vs CDS Window
Quadrant 3, Channel 15
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35


Amplifier Gain
Quadrant 3, Channel 16
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Gain
Pixel Number
4.2
4.1
4.0
3.9
3.8
3.7
0
500
1000
1500
2000
2500
3000
3500


Signal vs Amplified Signal
Quadrant 3, Channel 16
CDS window 5, Gain 3.988, R-square 0.9991
CDS window 10, Gain 3.987, R-square 0.9992
CDS window 20, Gain 3.971, R-square 0.9992
CDS window 30, Gain 3.867, R-square 0.9992
Amplified Signal (DN)
Unamplified Signal (DN)
70000
60000
50000
40000
30000
20000
10000
4000
6000
8000
10000
12000
14000
16000


Amplified Signal Level from CDS
Quadrant 3, Channel 16
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Amplified Signal Level (DN)
Pixel Number
70000
60000
50000
40000
30000
20000
10000
0
500
1000
1500
2000
2500
3000
3500


Unamplified Signal Level from CDS
Quadrant 3, Channel 16
CDS window 5
CDS window 10
CDS window 20
CDS window 30
Unamplified Signal Level (DN)
Pixel Number
16000
14000
12000
10000
8000
6000
4000
0
500
1000
1500
2000
2500
3000
3500


Amplifier Noise vs CDS Window
Quadrant 3, Channel 16
Noise (DN)
CDS Window Size (Samples)
24
22
20
18
16
14
12
10
0
5
10
15
20
25
30
35